JIMMA UNIVERSITY
SCHOOL OF GRADUATE STUDIES

Roles of Social Support and Caregivers in the Treatment Effectiveness of people with Mental Illness: the case of outpatients in psychiatry clinic of Jimma University Specialized Teaching Hospital

By
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Jimma, Ethiopia

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A Thesis Submitted to the School of Graduate Studies of Jimma University in Partial Fulfillment of the Requirements for the Degree of Master of Arts in Sociology and Social Policy

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A RESEARCH ON

ROLES OF SOCIAL SUPPORT AND CAREGIVERS IN THE TREATMENT EFFECTIVENESS OF MENTAL ILLNESS: THE CASE OF OUTPATIENTS IN JIMMA UNIVERSITY SPECIALIZED TEACHING HOSPITAL

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Approved by Board of Examiners

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External Examiner	**Signature**
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Internal Examiner	**Signature**

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Acheron names

PWMI- People with Mental Illness

JUSTH- Jimma University Specialized Teaching Hospital

FGD- Focus Group Discussion

Abstract

Various reports reviled that mental health problems in Ethiopia account for nearly 12% of disease burden and carry lifetime prevalence. In Ethiopia, still there is lack of awareness on mental health, basic management skills among primary health workers and limited resources for mental health care. Mental illness is treatable, curable and usually its indications can be controlled efficiently through medicine and/or psychiatric aid. However, various issues influence treatment effectiveness, and even determine the way mental health is practiced. Thus, this study aims to explore the role of social support and caregivers for the treatment effectiveness of people with mental illness outpatients in Jimma University Specialized Teaching Hospital psychiatric clinic. An institutional based cross sectional study design with psychiatric outpatients, focus group discussion and key informant interviews were conducted in describing and explaining the role of social support and caregivers for treatment effectiveness of mental illness. The quantitative data was collected from 302 PWMI outpatients and 98 caregivers in the psychiatric clinic of JUSTH. Next, qualitative data was also collected from 18 psychiatrists and clinical nurses. The quantitative data was analyzed using descriptive statistics (frequency, percentages mean distribution and correlations) and the statistical analysis tool SPSS (Version 20) was also utilized for inferential statistical analysis (Chi-square). On the other hand, qualitatively obtained data was analyzed by interpreting and explaining of words and terms of respondents. Patients with good social support systems and patient who have caregivers showed better treatment effectiveness within expected dates of illness recovery. In addition, the socio-demographic characteristics of patients as well as caregivers had association with the effectiveness of psychiatric patients' treatment. Raising the awareness of the community on the roles of emotional, interpersonal and economic supports and caregivers is essential. Additionally, raising awareness of the community about the relations of socio-demographic characteristics of patients as well as caregivers with the effectiveness of psychiatric patients' treatment is vital.

CHAPTER ONE
INTRODUCTION

1.1 Background of the study

Mental illness is a term used to express a wide range of mental and emotional conditions and a health problem that radically affects how a person feels, thinks, behaves, and interacts with other people (Omolayo *et al*., 2013). Mental illness creates disturbances to an individual's capability to lead an enjoyable life, including the ability to form and uphold relationships, to study, work or chase leisure interests. It causes a variety of psychosocial problems such as decreased quality of life for the patient's family members, as well as increased social distance for the patient and the family caring for the patient. In addition to this mental illness can adversely diminish functioning at not only the individual level but also broader welfare losses at the household and societal level (WHO, 2012).

According to Commonwealth of Australia (2009), mental health and wellbeing may be greatly affected by a combination of biological, social, psychological, environmental and Economic factors. Furthermore, an individual's mental health and wellbeing needs to be viewed within the context of lower incomes, power in relationships, status in the workplace, greater caring responsibilities and experiences of harassment, violence and discrimination (Women's Mental Health and Wellbeing 2013). Moreover, the burden of caring mainly falls on the family members who supply all required support for people with mental illness patients (Iseselo *et al*., 2016).

Globally, it is estimated that 450 million people are affected by mental problems at any one time, yet only small minority of them receive even the basic treatment. Mental illness accounted for about 12.3 % of the global burden of disease in 2001 and it is estimated that by 2020 it will be the second most important cause of death and disability. Besides, underdeveloped countries and low-income countries have a higher risk for commonness of mental illness (Sanchez and Nurilign, 2015). Mental illness and behavioral disorders contribute to around 19% of all years of life lost due to disability (YLD) in Eastern Sub-Saharan Africa (Strand *et al.,*2016). Furthermore, there is growing international evidence that mental illness and poverty interact in a negative cycle in low-income and middle-income countries.

Similar to other low-income countries, mental illness in Ethiopia is increasing from time to time and largely neglected. Indeed, it was found out that mental illness like schizophrenia, bipolar disorder, depression, childhood mental illness, epilepsy and dementia are quite serious in the country. Even though, preventing mental illness and promoting mental health is quite vital for human beings there are various factors that determine its well being and health (WHO, 2012). In Ethiopia, still there is lack of mental health awareness, basic management skills among primary health workers and limited resources for mental health care (Worku & Shiferaw, 2014).

Globally, diverse quantitative studies show that there is a positive and strong relation between mental health and social support. For example, social supports can increase mental health by increasing a person's self-confidence and feelings of valued, alleviate stress and decreases feelings of loneliness and isolation and helps to maintain and build positive mental health (National Alliance on Mental Illness, 2016:5; Corrigan, 2004 & Omolayo et al, 2013).

Mental illness is treatable, curable and usually its indications can be controlled efficiently through medicine and/or psychiatric help. Yet, there are also various issues that influence treatment effectiveness, and even determine the way mental health is practiced. Among the factors which attempts to improve the quality and outcomes of treatment for mental health problems, such as dissemination of treatment guidelines, problem-solving therapy, brief psychological treatment, or family, couples, or group therapies, follow-up outreach, support provider education, and socioeconomic support have been identified as the major ones (Layard *et al*., 2013). Untreated mental infirmity can interrupt an individual's social, educational, economic and work behavior and in some cases may lead to suicide (Omolayo *et al*., 2013). Effective treatment of mental illness could reduce delay in treatment and thus improve treatment effectiveness (Jacobs *et al*., 2010).

Based on the aforementioned facts this study was aimed to explore the role of social support and caregivers in the treatment of people with mental illness outpatients in Jimma University Specialized Teaching Hospital.

1.2 Statement of the problem

There is growing international evidence that mental health problems and poverty relate in a negative cycle in low-income and middle-income countries and are largely neglected. People who live in poverty have increased risks of mental illness and they have increased likelihood to remain in poverty (Berhanu & Solomon, 2014). Studies in Ethiopia also showed as similar to other low-income countries the problem of mental illness in the country is aggravated by poverty, unemployment, various psychosocial problems and the presence of other physical illness (Amare & Markos 2004; Chemali, 2013 & Mubarek *et al.*, 2015).

Particularly in Jimma area, mental health problems have been alarmingly increasing and the awareness level of the community about the illnesses is extremely low (Reta *et al.*, 2016). A study by Berhanu & Solomon (2014) reveals as extreme poverty, low level of education and awareness, academic failure, marital conflict, unemployment rate, stressful life styles, culture of "khat' chewing, and low medical help seeking behavior, were considered to be exposing factors to mental disorders in Jimma. Moreover, other studies also showed as people with mental illness are likely to experience stigma and that residents of Jimma town extensively hold a stigmatizing attitude towards those people (Eshetu *et al.*, 2013 & Reta *et al.*, 2016). In general studies from JUSTH (Amare & Markos, 2004; Chemali, 2013; Kenfe *et al.*, 2013; Berhanu & Solomon, 2014; Mubarek *et al.*, 2015; Yared *et al.*, 2016 …) recommended, as since mental illness has high prevalence in the area it needs attention and is curtail to raise awareness of the people.

International evidences reveal as mental illness is treatable and usually indications of it can be controlled efficiently through medicine and/or psychiatric help (Omolayo *et al.*, 2013). Untreated mental infirmity can interrupt an individual's personal, social, educational, economic and work behavior and in some cases may lead to suicide (Omolayo *et al.*, 2013). Other studies also find out as however, mental illness is treatable and curable (can be controlled) there are also various issues that influence treatment effectiveness, and even determine the way mental health is practiced (Layard *et al.*, 2013). Among the major factors which can improve the quality and outcomes of treatment for mental health problems that had been identified by Layard *et al.* (2013), were dissemination of treatment guidelines, provider education, socioeconomic class,

follow-up outreach; problem-solving therapy; brief psychological treatment; and/or family, couples, or group therapies.

Moreover, many studies in different countries have also been revealing as social support plays enormous role in preventing, maintaining, promoting mental health and for the effective treatment of mental illness in general (Treece, Rangarajan & Thompson, 2011; Heekin & Polivka, 2015; Reblin & Uchino, 2016). Despite these findings, globally still there is a research methodology gap in exploring the issue using mixed or both qualitative and quantitative methods. In addition, there is also a knowledge gap in exploring the relationship between social support and people with mental illness outpatients' treatment effectiveness.

Nonetheless, to the knowledge of the researcher, totally in Ethiopia there is a research gap in exploring the relationship of social support and treatment effectiveness of people with mental illness outpatients. Particularly in JUSTH only little researches were conducted so far on the determining factors of effective treatment for people with mental illness outpatients.

Therefore, this study was conducted to fill the aforementioned knowledge gaps by exploring the importance of social support and the role of caregivers for an adequate treatment of mental illness. In addition to this, the study tried to identify the influence of patients' socio-demographic characteristics in their treatment effectiveness by combining both the qualitative and quantitative research methods.

Furthermore, this study was conducted for the quite vital reason that is to understand and explain the issue using sociological imagination. Although mental illness is social and has a huge sociological area of study, in Ethiopia, sociologists conducted only few researches and there is a very huge knowledge gap in explaining and exploring the issue sociologically.

1.3 Objectives of the study

1.3.1 General objective

The study was aimed to explore the role of social support and caregivers for the treatment effectiveness of people with mental illness outpatients in Jimma University Specialized Teaching Hospital.

1.3.2 Specific objectives

- ✓ To identify psychiatric patients who have social and caregivers' support and those who do not have
- ✓ To measure the levels of social support psychiatric patients' had received
- ✓ To identify the variations of treatment effectiveness among psychiatric patients who have a social and caregivers' support and patients with no support
- ✓ To assess the relationship between the levels of social support and treatment effectiveness of people with mental illness
- ✓ To identify the role of caregivers for the treatment effectiveness of people with mental illness in JUSTH
- ✓ To identify patients' socio-demographic factors influence on the treatment effectiveness of people with mental illness in JUSTH

1.4 Significance of the study

It is hoped that the findings of the study will be very helpful for the shift towards community-based care for patients with mental illness and vital to show the importance of psychosocial factors for mental health. It is also crucial for mental health professionals to be sensitive to the importance of social support and the role of caregivers for the effective treatment of mental illness. In addition, the study findings could serve as important inputs for exploring how to enhance the quality of life of both- the people with mental illness, and their families. Finally, the findings of the study will help to give constructive recommendations for the policy makers to design a policy, which includes the social factors for prevention, promotion and maintenance of mental health.

1.5 Scope of the study

Although a study with a wide area coverage and a much larger number of respondents would have provide much deeper and useful information concerning the role of social support and caregivers in treating mental illness, this study is limited to the study of the research problem in JUSTH. Since the research is targeting at the issue of the role of social support and caregivers, it is confined to the study of people with mental illness' treatment that might have an impact on the treatment duration of these patients. Moreover, in this study researcher gave much emphasis especially to the significance of social support and caregivers and their relation with mental illness treatment. In terms of geographical location, the study area is restricted to Jimma University Specialized Teaching Hospital, which is found 352 kms away from Addis Ababa city.

1.6 Conceptual and operational definitions

1.6.1 Conceptual definitions

Mental illness: is a wide range of mental and emotional conditions and a health problem that radically affects how a person feels, thinks, behaves, and interacts with other people (WHO, 2012).

Treatment: is a provision of medical care in which the application of medical care to cure disease, heal injuries, or ease symptoms (Omolayo *et al*., 2013).

Treatment duration: the time length of application of patients cares to cure mental illness, or ease its symptoms for specific time length.

Social support: is an instrumental, physical and emotional comfort given to somebody by his/her family, friends, neighbors, co-workers and others (Corrigan, 2004).

Support provider (Caregiver): can be somebody who looks after somebody or a medical worker or allied health professional who assists in the management of an illness or disability (Pollett, 2007).

Outpatient: is an individual or any family member goes into a professional health office for treatment that has been set up on a regular appointment basis, most likely weekly or bi-monthly (WHO 2010).

1.6.2 Operationalization of variables

The following table depicts the identification of variables from those of indicators to the variables, unit of measurement and shows the level at which the indicators are measured

Table 1: Operationalization of terms

Variable	Indicator	Level and Unit of Measurement
Age	Length of time (year) that one has been alive	**Scale:** _____ years old
Sex	Indicate male or female	**Nominal:** Male or Female
Marital status	Indicate having or not having marriage	**Nominal:** Never married, Married, Divorce, & Widowed
Educational status	Level of Education attained	**Ordinal:** No formal education, Primary education, Secondary education…
Occupation	A type of work acquired	**Nominal:** teacher, farmer, merchant…
Place of residence	An area an individual lives	**Nominal:** urbanities or rural people
Religion	Belief system of an individual	**Nominal:** orthodox, Muslim, protestant, catholic, other
Social support	Indicates level of emotional, financial, informational and social (inter personal) support received	**Ordinal:** Higher, medium, lower levels using Linker scales
Treatment effectiveness	Indicates illness's expected duration and patients change within the expected dates & the level of illness relapse that an individual had within the treatment	**Ordinal:** Better, medium, lower

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Mental illness

According to the World Health Organization (WHO) constitution, mental illness is defined as "collectively all diagnosable mental disorders" or "health conditions that are characterized by alterations in thinking, mood, or behavior (or some combination thereof) associated with distress and/or impaired functioning". Symptoms of mental illness often can be controlled effectively through prescription and/or psychotherapy, but sometimes the symptoms of mental illness may go into reduction and for some people, it causes continuous incidents that require continuing treatment. Untreated mental illness can disrupt an individual's personal, social, educational and work activities and in some cases may lead to suicide (Sripada *et al*., 2015). Globally, mental illness affects 1 in 4 people and causes health problems, contributes to a poor quality of life, and places social and economic burdens on the patients, their families, and entire nations (WHO, 2012). In addition, views about mental illness most times determine pattern of attitude that will be displayed by individuals towards the people with mental illness. Due to the misunderstanding and myths surrounding the people with mental illness, sometimes they are stigmatized and may be labeled in stereotypical names (Sripada *et al*., 2015). Stigmatization or discrimination towards a particular group in society, may lead to placing them at a higher risk of stress, anxiety and other common mental disorders (WHO, 2012).

An individual's psychological well-being may be influenced by individual characteristics or attributes, by the social surroundings and the broader environment in which they live (WHO, 2012). Personal attributes may include an innate as well as learned ability to deal with thoughts and feelings and to manage him/herself in daily life, as well as the capacity to deal with the social world around by partaking in social activities, taking responsibilities or respecting the views of others. On the other hand, social surroundings: including their opportunity to engage positively with family members, friends or colleagues, and earn a living for themselves and their families and the wider socio cultural and geopolitical environment can also influence it. In addition, restricted or lost opportunities to gain an education and income are especially relevant

socio-economic factors, which have the power to affect an individual's mental ability (WHO, 2012).

Risks to mental health may manifest themselves at all stages in life (maybe at childhood, or youth, adolescent, old age or …). Moreover, trouble to an individual's mental ability can adversely compromise these capacities and choices, leading not only to diminished performance at the individual level but also high wellbeing losses at the family level (WHO, 2012). For most people with mental illness individuals families are primary caregivers that put them in demanding conditions. Families offer emotional, physical, and instrumental support for their member with a mental problem. Mostly poor economic status in the family may increase the vulnerability for perceiving burden and as the result develop poor alteration capacity. Families are also primary victims of member's with mental disorder due to nature of familial interaction and due to care-giving role for a member living with mental disorder. Psychiatric disorder is communicable in its effect on others and the whole family must adapt to the behaviors of people with mental illness family member (Berhanu & Solomon, 2014).

Untreated psychiatric disorders affect millions of people throughout the world to misery, disability and economic loss. While its prevalence is huge, only few people receive the basic services they need. Some of the barriers for closing the gap in care include lack of capacity, ''over-reliance on the medical model," stigma, and lack of widely accessible sites. Many of them experience lack of productivity, social stigma, and furthermore, neglect to acquire treatment. On the other hand, treatment of mental health conditions are underrepresented in low income and underdeveloped countries due to lack of precedence, lack of resources, or clinical training and background to treat it (Sanchez & Nurilign, 2014).

2.2 The sociology of mental illness

Sociology in general is the scientific study of the society, social behavior, social conditions and social institutions. Every aspect of human life functioning and growth are deeply intertwined with the society and its various elements. The influence of our social environment and social conditions in all of these respects is the fundamental understanding that sociology aims to present. Social conditions may include interrelationship pattern among people, race, socio-economic status, gender, elements of culture, value and belief system of the society, societal

attitude for providing care, social support and nurturance to people, etc (Bhattacahrjee *et al*., 2011). Sociology has various sub fields, which deal the relationship of various social problems and social conditions of human beings.

Among the various fields in sociology, medical sociology is one that deals about the social patterning of health (Amzat & Razum, 2014). It states as social conditions and illness have a very strong and mutually interdependent relationship (Bhattacahrjee *et al*., 2011). Besides more specifically, medical sociology deals as various social, economic, and physical environments operating at different stages of life shape a person's mental health and many common mental disorders (WHO, 2014). Mental illness is influenced not only by individual attributes, but also by the social circumstances in which persons find themselves and the environment in which they live; these determinants interact with each other dynamically, and may threaten an individual's mental health state. It also states as an individual's capacity to lead a fulfilling life, including the ability to form and maintain relationships, to study, work or pursue leisure interests, and to make day-to-day decisions about educational, employment, housing or other choices can be disturbed and mental illness can adversely compromise these. Mental illness may lead not only to diminished functioning at the individual level but also broader welfare losses at the household and societal level (WHO, 2012).Risk factors for many common mental illnesses are heavily associated with social inequalities, whereby the greater the inequality the higher the person's mental inability (WHO, 2014). In the early twenty-first century, advances in medical science, through genetics, the neurosciences, and pharmacology, can be argued to have eclipsed the explanatory value of social scientific understandings of mental illness, as the tendency to portray genetic factors as the ultimate solution is reinforced by the media and the social hegemony (Bendelow, 2004).

In 20th century, in medical sociology many hypotheses and theories were developed to find out the etiological function of society and environment in mental illness. Many efforts were made to describe the role of some macro-social measures and indices in the causation of mental disorders, e.g., migration, poverty, unemployment and marginalization of various groups by the greater society (Bhattacahrjee *et al*., 2011). Mental health and disorder have been already for a long time a topic of sociological interest. There are sociological explanations of the causal factors in their etiology, treatment procedures, changes in and characteristics of mental health services, as well

as relationships between various groups of health care professionals in the mental health field (Baltruoaityte, 2003).

2.2.1 Sociological perspectives on mental health and illness

At the heart of sociology is the sociological perspective, the outlook that our social backgrounds influence our attitudes, behavior, and life chances. In this regard, we are not just individuals but rather social beings deeply enmeshed in society (Baltruoaityte, 2003).

In the decade of 1930s, many efforts were made to describe the role of some macro-social events and indices in the causation of mental illnesses, e.g., migration, poverty, unemployment and marginalization of various groups by the greater society**.** The first effort of examining the role of society and environment in field of mental health could be traced in the works of 19th Century US epidemiologist Edward Jarvis. Jarvis did a population based survey to enumerate the prevalence rate of ‘‘insanity’’ in the general population (Bhattacahrjee *et al*., 2011).

In addition to this, in 1961 Erving Goffman also made a participant observational study in St. Elizabeth’s Hospital in Washington, D.C. Goffman's work on the asylums was one of the first sociological examinations of the social situation of people with mental illness patients. Asylum is only one of a number of books that appeared in the 1950s and 1960s that studied the uniqueness of mental hospitals that impinged upon patients and affected the course of their illness (Weinstein, 1982). He also published his book entitled ‘Stigma’ in 1963 which clearly shows the burdens of people with mental illness patients because of the negative attributes of the society. Drawing on both psychology and sociology, Goffman describes the world for those with a stigma and accordingly stigma is an attribute that is ‘deeply discrediting’ people with mental illness starting from having a diagnosis of mental illness (Daly, 2010).

Moreover, at the same time some core sociological theories had also been developed to describe the role of society and environment in mental illness. Examples of such sociological theories are social causation and selection theory, social constructivism and labeling theory (Bhattacahrjee *et al*., 2011).

A. **Social causation and social selection theory**

The social causation hypothesis claims that the people of lower social status do have the higher chances to encounter negative factors like adversity and stress. Moreover, adversity and stress make people vulnerable for mental illness. While the social selection hypothesis states that, some genetically predisposed persons tend drift down to or fail to rise out of such positions and become vulnerable to be people with mental illness. Social causation hypothesis attributes the antagonistic socio-cultural environment and the social selection perspective suggests that mental disorders are over represented in the lower socioeconomic strata (Bhattacahrjee *et al*., 2011).

B. **The Social Constructivism Theory**

Constructivism is a theory based on observation and scientific study to explain the learning process of people. It states that people construct their own understanding and knowledge of the world, through experiencing things and reflecting on those experiences. When people experience something new, they usually try to relate it with their previously witnessed experiences and also try to either refurbish or refute it as per their previously gained ideas and experiences (Bhattacahrjee *et al.,* 2011). Social construction states as every culture has its particular explanations for illness and illness has developed through an interaction in a social context. Meaning and the experience of illness will be largely framed by the historical and existing social system (Nanjunda, 2014).

Constructivists' sociological work on mental health and illness stats as three core elements are vital. These are problematise the factual status of mental illness, analyze the ways in which mental health work has been linked to the production of psychiatric knowledge and the production of mental health problems. The other and the main is they established the links which exist in modern society with the coercive control of social deviance by psychiatry and the production of selfhood by mental health expertise (Bessa, 2012). In addition to this, social constructivists' state that mental disorder is "socially constructed" can mean that it is a social category, or in other words, that what is so categorized and the meanings attached to the categories, vary across time and place (Baltruoaityte, 2003).

C. **Labeling Theory**

Originally, labeling theory was developed by American sociologist Howard S. Becker to explain criminality. However, in later period this theory has been applied to explain people's attitude to

people with mental illness persons or mental illness. This theory is also known as *Social Reaction Theory*. Labeling theory introduces the understanding that deviance is not solely related to personality factors of the persons contemplating deviant activities and social environment especially people's attitude also has some sharing to put an individual or a group of individuals under the banner of 'deviants' or 'delinquents' or 'non conformists', etc. Labeling does not appear in a social vacuum and it is a process that has to be viewed in the light of larger perspective of a community's prevailing social system. Society proclaims that individuals who have been designated people with mental illness persons or drug addicts are misfit for getting into mainstream of the society. Thomas Scheff who happened to a sociologist by profession was an ardent critic of psychiatry and he recognized mental illness is merely a residual category of behavior, an explanation of last resort. From this perspective, a mental disorder was a label behind which psychiatrists and the public hid their ignorance of the real causes behind deviant behavior (Bhattacahrjee *et al.,* 2011).

2.3 Theoretical framework

For the better understanding of people with mental illness experiences including conditions and their support systems, the reflection of diverse theoretical approaches with mental health care is vital. Theoretical framework assists us with providing the justification of human experiences in terms of a constant interaction among cognitive, behavioral and ecological determinants (Hussain & Raihan, 2015). Thus, experiences' of people with mental illness can be better understood based on the following theoretical viewpoints:

2.3.1 Social capital and mental health

Pierre Bourdieu produced the first contemporary analysis of social capital and defined the concept as the collective of the actual or potential resources which are linked to ownership of a durable network of more or less institutionalized relationships of mutual associate or recognition. He makes clear that social capital is decomposable into two elements: first, the social relationship itself that allows individuals to claim access to resources possessed by their associates, and second, the amount and quality of those resources. According to Bourdieu, social inequalities should be understood in terms of the unequal allocation of four interrelated forms of 'capital' within a society: economic capital, symbolic capital, cultural capital and social capital.

Social capital is covered of the resources that derive from group membership, that is, from participation in a network of mutually- supportive relationships (Campbell, Cathy & Cornish, 2004).

Social capital is seen by social scientists as something that cannot be directly observed or measured but which has a cohesive force within populations. It is proposed that high levels of social capital (particularly involvement in local community groupings) reduce the likelihood of health-damaging social anxiety and increase levels of health-enhancing social support and perceived self-efficacy. Social capital often used as an umbrella term embracing social cohesion, social support, social integration and/or participation, among several other social determinants of health in general and mental health in particular (Almedom, 2005).

Underlying the possible association between social capital and mental health is the hypothesis that an increase in the social capital of a population reduces the prevalence of mental disorders. A further hypothesis on incidence helps distinguish a contribution to etiology from episode duration. It is conceivable that episode duration might be shorter in supportive environments. Indeed, recently is pointed out as the population level of social capital can improve the chances of access to services for people with mental disorders (Jenkins, 2003).

2.3.2 Stigma by Ervin Goffman

Ervin Goffman's theory of stigma deals about a negative attribute of the society towards people with mental illnesses that is deeply discrediting and begins when dominant groups distinguish human differences. He stated as stigma is generated in a social situation and is a reaction by society that spoils a person's uniqueness by a set of forced norms that are brought to stand on an encounter. Stigma is the identification of differentness, the construction of stereotypes, the labeling of persons as different and the execution of disapproval and discrimination. It is a question of the individual's situation, not his/her self-control; it is a question of conformance not obedience. Erving Goffman argues that stigma is intimately associated with stereotype, and that both are related to the unconscious expectations and norms (Rogers & Pilgrim, 2005). Failure at maintaining such norms have a very direct effect on the psychological and social integrity of the individual lead to perceived, enacted, or anticipated avoidance or social exclusion. Impact of negative social reactions on people with mental health problems lead to various forms of disapproval, rejection, exclusion and discrimination (National Institute of Mental Health, 2012).

According to Goffman, stigmatized people become isolated and demoralized and develop a blemished identity. Observed differences and actions that are socially disvalued, leads people with mental illness to a highly negative attributes and social labeling (Goffman, 1963). People's beliefs and attitudes about mental illness might lead people to fear disclose their symptoms, seek treatment and social support. These behaviors can increase their risk for developing chronic diseases, worsening their overall health over time and an increased risk of death at younger ages. These individuals may need a number of additional social supports to live successfully in the community, but such supports may not be available (National Institute of Mental Health, 2012).

In general, this theory shows the burdens of people with mental illness patients because of the negative attributes of the society and its consequences. He reveals the role of social support for the diagnosis, positive health treatment of people with mental illness. Therefore, this theory framed the study since its focus is all about the role of the society for the betterment of people with mental illness, which was the general objective of this study.

2.4 Ethiopia and mental health and illness

More often, in Ethiopia people attribute severe mental illness to super natural causes such as the spirit possession and evil eyes, rather than to biological or psychological causes. Because of deep rooted wrong perception, mentally ill individuals or their care givers habitually seek help from religious and traditional healers, than from mental health professionals (Sanchez & Nurlign, 2015). Researches indicated that mental illness is a leading non-communicable disorder in Ethiopia. Even though large numbers of people live in rural areas in Ethiopia, mental illness comprised 11% of the total burden of disease, out-ranking HIV/AIDS (FMOH 2013). Because of this, the Federal Ministry of Health's (FMOH) initiates to develop a National Mental Health Strategy that marks an important milestone towards the delivery of a comprehensive and integrated program to address the mental health needs of Ethiopians (FMOH, 2012).

This Strategy is critical to the development of Ethiopia's health system. The strategy is not only for the chronically people with mental illness – who often represent a small part of a population – but also for the many people who suffer from common mental disorders and substance abuse (FMOH, 2013). Mental health care will be for everybody, but with particular attention given to

the special needs of particular vulnerable populations; namely, the severely people with mental illness, those with substance abuse disorders, children and adolescents, persons living with HIV/AIDS, women, people in prisons, victims of violence and abuse, persons with epilepsy and the elderly. The strategy is a timely effort in light of Ethiopia's accelerated economic and social development plans. It recognizes the importance and the positive contributions of a physically and mentally healthy community in general and workforce in particular (FMOH, 2012). The strategy constitutes important but largely unrecognized barriers to achieving the MDGs, and, despite the existence of affordable and effective treatments, fewer than one in 10 of the most severely affected people ever receive the treatment they need. It is with this fundamental precept in mind that this strategy was developed. In addition, even though it has weakness in implementation the strategy tries to identify highly vulnerable groups and promotes community participation to minimize the problem of mental illness in Ethiopia (FMOH, 2012). In conclusion, even though it is very poor in the course of implementation the mental health strategy of Ethiopia is a great move on solving the problems of people with mental illness peoples as well as to uphold mental health in the country.

In Jimma town, especially in Jimma university specialized teaching hospital, mental health problems are very serious and the awareness level of the community about that illness is extremely low. Never these, only few researches conducted up to now on the issue. Especially in the area of social and environmental factors contributing for mental illness treatment is very few or no one scientific information is available (Chemali *et al.,* 2013).

2.5 Social support

Social support is an instrumental, physical and emotional comfort given to somebody by his/her family, friends, neighbors, co-workers and others. Research shows that social support provides important benefits to human beings physical, social and emotional health. Social support systems are an important part of our lives (Reblin & Uchino, 2016).

In addition, social support is also support accessible to an individual through social ties to other individuals, groups, and the larger community. A network of family, friends, neighbors, and community members is available in times of need to give psychological, physical, social and financial help. It should be noted that the optimal source of social support might depend on the developmental stage of the person who is receiving the support (Reblin & Uchino, 2016).

2.6 Mental illness and social support

Social support systems are an important part of our lives. These systems include anyone we trust and can go to for help, advice, or any other type of emotional support. Your social support system may be made up of your friends and family members; the individuals you support each have their own social support systems. Having a strong social support system is vital to maintaining mental health. Mental health is how people feel, think, and act in life. For instance, mental health affects how people think about and deal with challenges and problems. Making decisions, relating to other people, and handling stress are all part of maintaining mental health (Sripada *et al*., 2015).

For people with mental illness peoples', insight of adequate social support are associated with several benefits, including increased self-esteem, feelings of empowerment, functioning, quality of life and recovery, whereas the nonexistence of social support appears related to greater malfunctioning symptom, poorer perceptions of overall health, and abridged potential for full community amalgamation (Omolayo *et al.*, 2013). Social support may raise care utilization because an individual's support network promotes him or her to seek treatment when it is needed. In this conceptualization, social support acts as an "enabling" factor that facilitates treatment engagement. Thus, having a strong social support system is one of the best ways for you and the people you support to maintain and build positive mental health (Kehle *et al*., 2010).

2.7 Conceptual framework

Different theories and finding have forwarded their own assumption in an attempt to explain the major variables occurred on the assessment of the relationship between the role of social support, caregivers and treatment of mental illness. Obviously, multiple variables are recognized to contribute to the relationship between social support, caregivers and treatment of mental illness. Having the various sociological perspectives reviewed above in mind, the researcher has set up the following conceptual framework to analyze the relationship between social support, caregivers, various variables and treatment of mental illness.

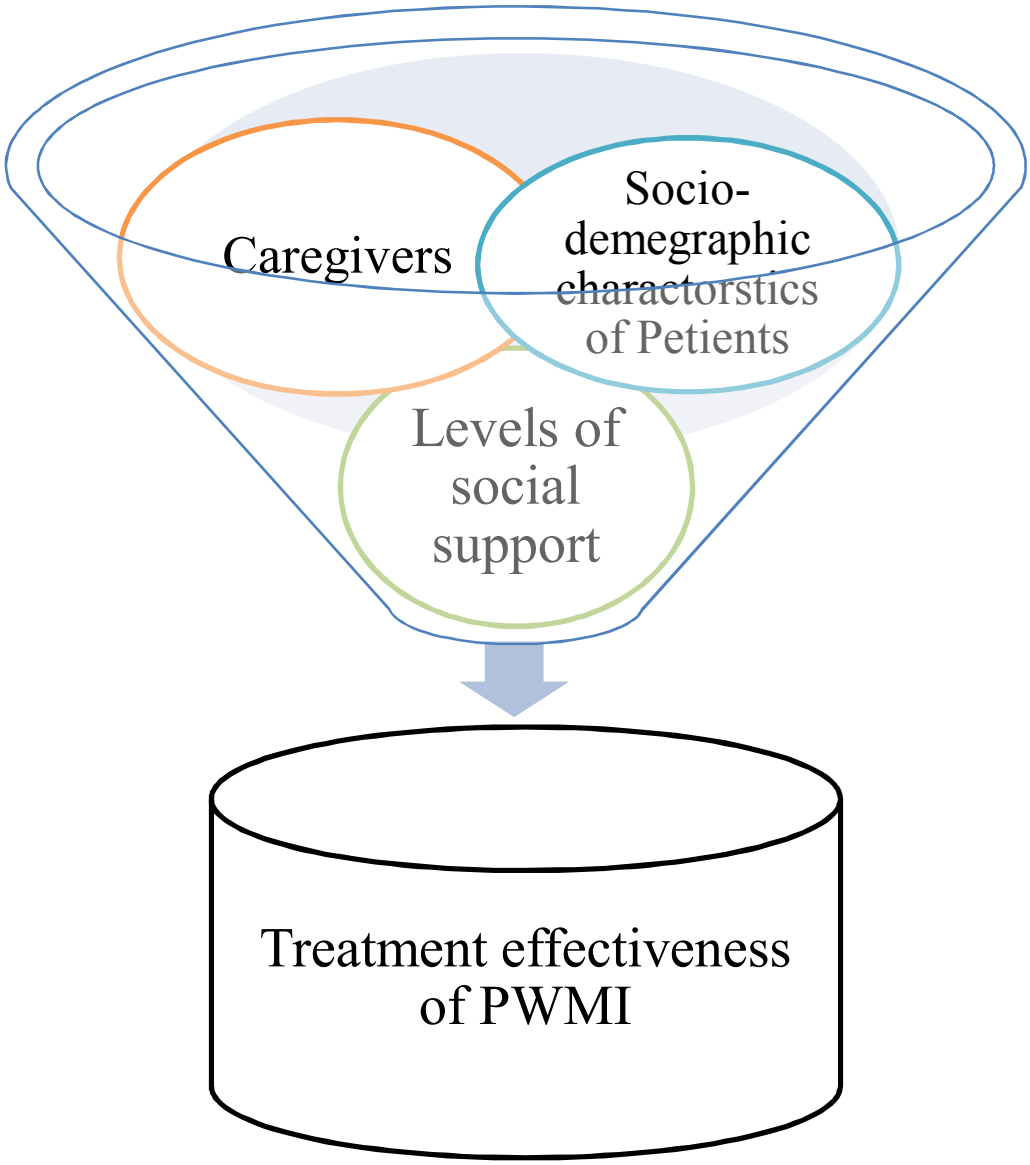

Figure-1 Conceptual Framework

CHAPTER THREE
RESEARCH METHODS

3.1 Research design

The study used explorative, descriptive, explanatory and institutional based survey designs. Basically, the research used both quantitative and qualitative research approaches. The study was conducted with the objective of describing and explaining the role of social support and caregivers for treatment of people with mental illness. Hence, to achieve its objective the study employed methodological triangulation.

3.2 Study area and population

The study area selected for this research is Jimma University Specialized Teaching Hospital Psychiatric clinic, which is located South Western part of Ethiopia in the Oromia regional state at distance of 352 km away from the capital city of Ethiopia, Addis Ababa. JUSTH is one of the oldest public hospitals in Ethiopia, which is found in Jimma town. JUSTH was established in 1937 during Italian occupation for the service of their soldiers. In Ethiopia, JUSTH is one of the hospitals that have psychiatric inpatient service. An outpatient psychiatry clinic was established in 1988, and there were 50 patients on daily follow up services (Yosef et al., 2015).

Recently Ethiopian government is trying to build up capacities of primary health centers in the country to open handled mental health services. As a result, recently a few primary health centers provide mental health services for the rural community in Jimma zone. However, since their service is recent with the problem of limited of resources and skilled professionals, this psychiatric facility continues to be a referral center for a population of over five million inhabitants of Southwestern Ethiopia (Yosef *et al*., 2015).

In the year 2016/17, the total numbers of people with mental illness outpatient throughout the year are **3500**. However, patients who do have a regular appointment during the study timeline and who had above six month average time on the wait list were only **402**. Accordingly, the population of this study was people with mental illness outpatients who do have follow-up appointments between March13/2017 and April 13/2017 at Jimma University Specialized

Teaching Hospital. In addition to this, caregivers of sampled people with mental illness outpatients were also included as study populations that deliver support for those patients.

3.3 Sample size and sampling techniques

People with mental illness outpatients who had an average of greater than six month time on the wait list and who do have follow-up appointments between March 13/2017 and April 13/2017in JUSTH were only **402**. The researcher-collected data from all of them except those who were excluded with regarded to the exclusion criteria of the study that are presented on page 21of the paper.

Accidental sampling technique was also used to select sample respondents from caregivers of people with mental illness out patients in JUSTH. This sampling technique is basically used to deal with a sample, which is drawn from that part of the population that is close to hand, readily available, or convenient (Bhattacherjee, 2012). Since this is about caregivers of people with mental illness outpatients, their presence may vary and could be under question mark and there may be a chance that a psychiatric outpatients who do not have caregiver and/or come by himself at that specific time. To select caregivers of people with mental illness outpatients accidental or convenience sampling technique was believed as appropriate for this study. Based on this, **98** caregivers were participated in the study.

Furthermore, purposive sampling technique was also used to select 18 participants of the focused group discussions and key-informant interview from psychologists, psychiatrists and nurses in JUSTH. The reason why the researcher applies purposive sampling technique was that it has an advantage of reducing the possibility of non-response from the respondents since they were selected on the bases of their experiences, professional and educational level. On the other hand, the researcher also had an assumption of participants to provide the necessary information and as it has an advantage of time and cost effectiveness as compared to other sampling design typologies.

3.4 Study participants

Individuals invited to participate in the study was intended to be representative of the study population. The total populations of PWMI who have appointments during the study period were

believed to be the study population. A total of **402** psychiatric outpatients were approached for enrolment in the study but only **302(75.124%)** participants were actually participated. Forty one(**41**) patients were unwilling to participate in the study, nine (**9**) were younger than 18 years, thirty five (**35**) were unable to give full and informed consent due to their current illness status and the rest fifteen (**15**) were absent during their treatment schedule. Additionally, 98 participants from caregivers of people with mental illness outpatients and 18 mental health professionals were selected and participated.

3.5 Inclusion and exclusion criteria

3.5.1 Inclusion criteria

To select study participants from people with mental illness outpatients the researcher used the following inclusion criteria

(1) A psychiatric outpatient's age that is age of 18 or above;
(2) A psychiatric outpatient who had follow-up appointment during the study time or stay
(3) A psychiatric outpatient's average time on the wait list was considerably longer than 6-months &
(4) His/her ability to give full and knowing consent

To select study participants from caregivers of people with mental illness outpatients' inclusion criteria were

(1) He/she provided at least above six month care for PWMI outpatients
(2) His/her presence during the study time &

3.5.2 Exclusion criteria

The exclusion criteria used for people with mental illness outpatients were

(1) People with mental illness outpatients who are younger than 18 years,
(2) People with mental illness outpatients who have no follow-up appointment during the study time
(3) His/her average time on the wait list which is considerably less than 6-months &
(4) His/her inability to give full and knowing consent

The exclusion criteria's of participants from caregivers of people with mental illness outpatients were

(1) He/she provided less than six month care for PWMI outpatients
(2) His/her absence during the study time &

3.6 Methods of data collection

The study employed both quantitative and qualitative (in combination) methods of data collection. Based on this, the researcher used survey, focus group discussion and key-informant interviews as methods of data collection.

3.6.1 Survey

As one of the most popular and advantageous methods of social research, survey research method was employed in order to obtain the necessary information from sample respondents of the study population. An institutional based cross-sectional survey design was used so as to get information about the present situation of respondents in the available time and limited resources on hand. In addition, a survey questionnaire was prepared and pretested on seven people with mental illness outpatients and five caregivers who were out of the sampled respondents.

Data was collected using a structured and pretested survey questionnaire in JUSTH Psychiatric clinic. The questionnaire was adapted from a social support questionnaire that was developed to assess social support systems of psychiatric patients and translated to local languages (Afan Oromo and Amharic). It examines the role of social support for people with mental illness outpatients' treatment and it includes 24 items. Additionally, a social support measurement scale was adapted from Minnebo, (2005) for the measurement of the levels social support that PWMI outpatients are receiving and it also was translated to local languages (Afan Oromo and Amharic). Out of the total 40 items, only 12 items that could measure emotional, interpersonal and instrumental types of support were selected and employed.

3.6.2 Focus group discussion

Two (2) Focus Group Discussions were done among psychologists, psychiatrists and clinical nurses in JUSTH. Each FGD was conducted with eight individuals who were selected by using purposive sampling technique based on their work experiences with patients, professional and educational level. Moreover, for these two-hour long focus group discussions a check list was prepared and used to help the study to obtain highly digested and commonly reflected information about the role of social support and caregivers in treating people with mental illness outpatients in JUSTH.

3.6.3 Key - informant interview

Using unstructured interview guide 4 psychiatrists, and 4 clinical nurses and 3 psychologists in JUSTH Psychiatric clinic who were purposively selected based on their knowledge, work experience and willingness to participate were interviewed.

3.7 Data sources

3.7.1 Primary data sources

Primary data was obtained from a sample of people with mental illness outpatients, caregivers to the outpatients and physicians at JUSTH. In fact, most part of the research paper is highly depend up on the information that is obtained from primary data sources.

3.7.2 Secondary data sources

As far as secondary data is concerned specifically to assess patients' treatment effectiveness data was extracted from cards of patients and statistical reports of JUSTH.

3.8 Variables

3.8.1 Dependent variables

Treatment effectiveness

Effectiveness of treatment was reviewed from each card of 302 respondents' with the help of two psychiatric professionals. Those professionals, ranked the patients' the current treatment effectiveness status as either improving or not improving based on two criteria and the criteria were:

1. Illness's expected duration and outpatients change within the expected dates illness of recovery
2. The level of illness relapse that an individual had within the treatment

Based on the above main criteria people with mental illness outpatients were ranked into three hierarchical groups as better change, medium change and lower change. Patients who had better changes within expected dates of illness recovery and had no or very lower level of illness relapse were grouped under better change. In addition, individuals who ranked as second were patients who had medium changes within expected dates and medium level of illness relapse and the third ones were patients with no or very slower changes within expected dates and had higher level of illness relapse.

3.8.2 Independent variables

Social support

Using a survey questionnaire the researcher identified patients who had caregiver and social support to diagnose the difference among patients. Then after, by using a standardized social support scale which was adapted from Minnebo, 2005 the study tried to identify the levels of social support of patients. In doing so, from 40 items of the scale the researcher selected only 12 items, which were vital to assess the emotional, interpersonal and instrumental types of social support. Each type of social support was represented by 4 items and items 1, 8, 11, were reversely scored. Items 1, 2, 3, 4, make up the Emotional Support subscale, where as items 5, 6, 7, 8 make up the Interpersonal Support subscale and items 9, 10, 11, 12 make up the Instrumental Support subscale.

Caregivers support

Caregivers' role was assessed using a questionnaire, which was distributed for caregivers themselves and patients. In addition, it was also presented for FGD and key informant interview participants.

3.9 Methodological triangulation

From the look at the various methods of data collection employed in research, this study used both quantitative and qualitative analysis in order to validate and demonstrate the data which was collected from different sources. The study employed a methodological triangulation that is briefly summarized in the form of the following table:

Table 2: Methodological Triangulation

Specific Objectives	Units of Analysis	Data Sources	Methods of Data Collection
To identify psychiatric patients who have social and caregivers' support and those who do not have in JUSTH	People with mental illness outpatients	Sample survey respondents, care givers &nurses	Survey, hospital report's and document analysis
To measure the levels of social support psychiatric patients' had received in JUSTH	People with mental illness outpatients	people with mental illness outpatients	Survey, Interview, and Focus group discussion
To explore the variations of treatment effectiveness among psychiatric patients who have a social and caregivers' support and patients with no support	People with mental illness outpatients	Sample survey respondents and psychiatrists	Survey, Interview, and Focus group discussion
To assess the relationship between the levels of social support and treatment effectiveness of people with mental illness	People with mental illness outpatients	Sample survey respondents, and psychiatrists	Survey, hospital report's, FGD and Interview
To identify the role of caregivers for the treatment effectiveness of people with mental illness in JUSTH	Caregivers	Sample survey respondents, and psychiatrists	Sample survey respondents, and psychiatrists
To identify patients' socio-demographic factors influence on the treatment effectiveness of people with mental illness in JUSTH	People with mental illness outpatients	Sample survey respondents, and psychiatrists	Sample survey respondents, and psychiatrists

3.10 Data analysis and Interpretation

Data was analyzed by using both qualitative and quantitative research data analysis techniques. Qualitatively obtained data from key informant interviews and focus group discussions was analyzed by interpreting and explaining of words and terms of respondents.

On the other hand, the quantitative data collected using the survey instrument (questionnaire), was analyzed using descriptive statistics (frequency, percentages, and correlation). In addition, the statistical analysis tool SPSS (Version 20) was also utilized for inferential statistical analysis (Chi-square).

3.11 Validity and reliability of data

3.11.1 Validity

To keep its validity the researcher employed methodological triangulation both to supplement the survey by maximizing clarity of information collected and to complement the study. The study was restricted to the number of questions needed to get this information in an efficient way and questions measuring the same concept were expected to be strongly correlated. In addition, obtaining multiple indicators of support and selecting the most appropriate question for a specific dimension was made. Various types of support were used to determine their linkages with specific outcomes and significant correlations between questions measuring different concepts. Further validation efforts also had been strengthened through the use of diverse techniques to examine the level and role of social support for the treatment of mental illness.

Moreover, using a valid 12 item social support scale that was developed and used by Minnebo, (2005) was also employed for the measurement of the levels social support that PWMI outpatients are receiving. Thus, by using the aforementioned techniques this study secured its validity.

3.11.2 Reliability

To ensure reliability of the study pilot testing was done for identifying any problem, to maximize the quality of data and omissions as well as to check time spent in responding. Following the analysis of the pilot study data, ambiguous or unclear questions were either rephrased or removed. Additionally, the wording and phrasing was also corrected for appropriateness after pre-test and intonations and approach while asking sensitive questions was well covered. Privacy of the subjects was highly maintained by avoiding questions referring to identity including names.

To ensure data quality, consistency was checked by translating the Afan Oromo and Amharic versions back to English. Some explanations given by interviewees was directly quoted in the

document. Even though it was difficult to generalize based on these explanations, they have reported the existing phenomenon with local tone.

Furthermore, two card runners and two clinical nurses collected the quantitative data after a half-day training on the contents of the questionnaire, study participants and the inclusion and exclusion criteria of the study. However, the researcher collected data from FGDs and key-informant interviews.

3.12 Ethical consideration

To follow the ethical protocols in research, first the researcher took permission requesting letter from the department of Sociology to Psychiatry department to ask permission for study. Moreover, written informed consents were obtained from the involved patients and their caregivers. The consent forms and information sheet were prepared in English and translated into local languages (Amharic and Afan Oromo). Explanations on the forms were given to the patients and their caregivers; and they were requested to sign the forms to show their agreement in providing the required information. The participants were ensured that the information they gave would be kept confidential and never cause them any harm in anyways. As their participations were on voluntary basis, they were told that they could withdraw from the study at any time. Those who were unwilling to participate in the study were not, in any case, obliged to do so.

CHAPTER FOUR

Data Presentation and Interpretation

This chapter deals with the data gathered from respondents through questionnaire, interview and focus group discussions. The data was collected from a total of 400 survey respondents, and questionnaires were distributed to 302 outpatients and 98 caregivers. In addition, 8 psychiatrists, 7 clinical nurses and 3 counselors were interviewed and participated in two FGDs.

Thus, the quantitative as well as qualitative analysis of data was incorporated into this chapter. The chapter consists of four parts. The first part reports on the characteristics of the respondents, which includes personal and professional characteristics. The second part presents variations of patients' in having a caregiver and social support and the next component incorporates the level of social support that patients are receiving. Additionally, the last part depicts roles of social support and caregivers in the treatment effectiveness of people with mental illness.

4.1 Socio-demographic characteristics of respondents

In general, there were 418 participants for the study. Firstly, the quantitative data was collected from the total of 302 people with mental illness outpatient and 98 caregivers through questionnaire and social support scale. On the other hand, the qualitative data was collected from 18 mental health professionals through interview and FGD. As it is depicted in table 3, from the total participants, n=243 were male and n=175 female respondents. The majority of the respondents were under age group 25-31 that occupy n=110, Muslims that was n=231, married participants n=194, respondents who had primary education n=115, participants with n=97 unemployed occupational status and they were n=231 from urban areas.

Table 3: Distribution of study participants by socio-demographic characteristics in Psychiatric clinic of JUSTH, Jimma Ethiopia, April, 2017(n=418)

Variable	*Category*	*Respondents*						*Total*
		outpatients		*caregivers*		*physicians*		
		NO	*%*	*NO*	*%*	*NO*	*%*	
Sex	*Male*	*171*	*56.6*	*57*	*58.2*	*15*	*83.33*	***243***
	Female	*131*	*43.4*	*41*	*41.8*	*3*	*16.67*	***175***
	Total	***302***	***100***	***98***	***100***	***18***	***100***	***418***
Age	*18-24*	*31*	*10.3*	*7*	*7.2*			***38***
	25-31	*79*	*26.2*	*15*	*15.3*	*16*	*88.8*	***110***
	32-38	*67*	*22.2*	*26*	*26.5*	*2*	*11.11*	***95***
	39-45	*48*	*15.9*	*16*	*16.3*			***64***
	46-52	*43*	*14.2*	*10*	*10.2*			***53***
	53-59	*14*	*4.6*	*13*	*13.3*			***27***
	60-66	*20*	*6.7*	*11*	*11.2*			***31***
	Total	***302***	***100***	***98***	***100***	***18***	***100***	***418***
Religion	*Orthodox*	*98*	*32.5*	*28*	*28.6*	*13*	*72.2*	***139***
	Islam	*172*	*57*	*56*	*57.1*	*3*	*16.6*	***231***
	Protestant	*29*	*9.6*	*11*	*11.2*	*2*	*11.1*	***42***
	Catholics	*3*	*1*	*3*	*3.1*			***6***
	Total	***302***	***100***	***98***	***100***	***18***	***100***	***418***
Marital status	*Un Married*	*117*	*38.7*	*21*	*21.4*	*13*	*72.22*	***151***
	Married	*129*	*42.7*	*60*	*61.2*	*5*	*27.78*	***194***
	Divorced	*42*	*13.9*	*10*	*10.2*			***52***
	Widowed	*14*	*4.6*	*7*	*7.2*			***21***
	Total	***302***	***100***	***98***	***100***	***18***	***100***	***418***
Educational status	*No education*	*39*	*12.9*	*12*	*12.2*			***51***
	Able to R and W	*19*	*6.3*	*12*	*12.2*			***31***
	Primary education	*90*	*29.8*	*25*	*25.5*			***115***
	High school	*46*	*15.2*	*17*	*17.3*			***63***
	Diploma	*56*	*18.5*	*11*	*11.2*	*5*	*27.78*	***72***
	Degree	*52*	*17.2*	*21*	*21.4*	*13*	*72.22*	***86***
	Total	***302***	***100***	***98***	***100***	***18***	***100***	***418***
Occupation	*Housewife*	*21*	*7*	*5*	*5.1*			***26***
	Farmer	*48*	*15.9*	*16*	*16.3*			***64***
	Student	*31*	*10.3*	*21*	*21.4*			***52***
	Merchant	*31*	*10.2*	*19*	*19.4*			***50***
	Government employee	*64*	*21.2*	*10*	*10.2*	*18*	*100*	***92***
	Unemployed	*86*	*28.5*	*11*	*11.2*			***97***
	Others	*21*	*7.9*	*16*	*16.3*			***37***
	Total	***302***	***100***	***98***	***100***	***18***	***100***	***418***
Place of residence	*Urban*	*158*	*52.31*	*55*	*56.1*	*18*	*100*	***231***
	Rural	*144*	*47.68*	*43*	*43.9*			***187***
	Total	***302***	***100***	***98***	***100***	***18***	***100***	***418***

*Others- NGO employee, Daily laborer, Driver *Source: Researcher's survey data*

Out of 302 PWMI respondents, n=171(56.6%) were male and n=131(43.4%) were female. With regarded to age group, the majority n=79(26.2%) of the respondents were under age group 25-31 which is followed by the age group of 32-38 that had n=67(22.2%). The age difference ranges from 20 (the lowest) to 66 (the highest) with 37.7 average ages of respondents. In terms of marital status, highest prevalence of mental illness was observed in married respondents which had n=129(42.7%) followed by n=117(38.7%) of unmarried study population, n=42(13.9%) divorced participants and n=14(4.6%) widowed respondents respectively. Additionally, n=172(57.0%) of the study groups were Muslims, n=98(32.4%) were Orthodox, n=29(9.6%) were Protestants and 3(1.0%) were Catholics. From all of the respondents, n=90(29.8%) attended primary education, n=56(18.5%) had certificate or diploma, n=52(17.2%) of them were university degree holders, and n=46(15.2%) had attended secondary education. With regarded to place of residence n=194(64.3%) of study participants were from urban area and the rest n=108(35.8%) were from rural areas. Based on occupation, the majority of the patients that occupy n=86(28.5%) were unemployed followed by n=64(21.2%) government employees participants, and n=48(15.9%) farmers.

Since treatment effectiveness is a combination of various attributes of the respondents, it is hypothesized that variation in most socio-demographic characteristics of respondents is an essential input to analyze it across various attributes of the patients.

4.1.1Current outpatients' treatment effectiveness status

Based on the analysis of psychiatric professionals, the current mental health status of PWMI study participants were ranked into three groups.

Table 4: Distribution by treatment effectiveness of PWMI outpatient's in Psychiatric clinic of JUSTH, Jimma Ethiopia, April, 2017(n=302)

Treatment effectiveness status	***Respondents***	
	NO	***%***
Better changes within expected dates and had no or very lower level of illness relapse	54	17.9
Medium changes within expected dates and medium level of illness relapse	209	69.2
Lower (little) changes within expected dates and had higher level of illness relapse	39	12.9
Total	***302***	***100***

Source: Review of cards of patients'

Out of the total respondents, majority of the respondents with n=209(69.2%) had medium changes within expected dates and medium level of illness relapse followed by n=54(17.9%) of participants with better changes contained by expected dates and no or very lower level of illness relapse. On the other hand, the rest n=39(12.9%) of them had lower (little) changes within expected dates and had higher level of illness relapse.

4.2 Social and caregiver support outpatients' have

Table 5: Distribution of Psychiatric outpatients' status of having a social support and caregivers in JUSTH psychiatric clinic, Jimma, Ethiopia, April 2017(n=302)

Variables	***Items***	**Responses**			
		Yes, I have		**No, I haven't**	
		NO	***%***	***NO***	***%***
Caregiver	Someone specially to takes care of	242	80.2	60	19.8
Emotional support	Someone to share most private worries and fears	239	79.1	63	20.9
	Someone to turn for advice on how to handle family problems	251	83.1	51	16.9
	Someone who loves & cares more	244	80.8	58	19.2
Total		**245**	**81.1**	**57**	**18.9**
Interpersonal support	Knowing & making friendship with others	271	89.8	31	10.3
	Several people to enjoy & spending time with	243	82.5	59	19.5
	Participating in social any activities	243	82.5	59	19.5
Total		**252**	**83.4**	**50**	**16.6**
Instrumental support	There are several to cover up costs for food, transportation, etc.	227	75.2	75	24.8
	There are several people to provide material support	241	79.8	61	20.2
Total		**234**	**77.5**	**68**	**22.5**

Source: Researcher's survey data

Out of the total participants, n=242(80.2%) respondents had a caregiver, but n=60(19.8%) patients had no one that specially takes care of them in any aspect. In regarded to emotional support, n=239(79.1%) respondents have someone to talk about something personal or private and n=63(20.9%) have no one to share their personal worries. As well, n=251(83.1%) respondents have someone to turn for advice about making changing life and the rest n=51(16.9%) of them have no one for advising them in making challenging decisions. In addition to this, n=244(80.8%) of the respondents have someone who cares and loves them. Beside, n=58(19.2%) participants have no one who to love and care.

On the other hand, in terms of interpersonal support by knowing and making friendship with other people outside of family n=271(89.8%) of the respondents believed as it helps them to feel happy and avoids tension. However, n=31(10.3%) of the respondents do not know anybody outside of their family and have no friends. Moreover, out of the total participants n=243(82.5%) of them have several people to enjoy & spending time with and n=243(80.5%) of them also participated in any social activity. Whereas n=59(19.5%) of them had no one to enjoy and spending time with and 59(19.5%) respondents do not participate in any social activity. Likewise in terms of instrumental support, n=227(75.2%) respondents have financial support and n=75(24.8%) participants had no support. On the other hand, n=241(79.8%) of the respondents have material support from others whereas n=61(20.2%) of them do not.

In general, n=245(81.1%) of the respondents have an emotional support whereas n=57(18.9%) of the patients have no emotional support. In addition, n=252(83.4%) patients have inter personal support though n=50(16.6%) respondents do not have, and n=234(77.5%) of the patients received an instrumental support while n=68(22.5%) of the patients have not.

4.3 Level of social support psychiatric outpatients' had received

Table 6: Distribution of Psychiatric outpatients' level of support they get from others in JUSTH psychiatric clinic, Jimma, Ethiopia, April 2017(n=302)

Sub supports	*Levels of Social support*					
	High Support		*Moderate support*		*Low Support*	
	N	***%***	***N***	***%***	***N***	***%***
Emotional support	*100*	*33.1*	*185*	*61.3*	*17*	*5.6*
Interpersonal support	*166*	*55.0*	*133*	*44.0*	*3*	*1.0*
Instrumental support	*98*	*32.5*	*179*	*59.3*	*25*	*8.3*
Total support	*121*	*40.0*	*166*	*55.0*	*15*	*5.0*

Source: Researcher's survey data

From the total respondents, n=100(33.1%) of the patients received high level of emotional support next to n=185(61.3%) patients who have moderate level of emotional support. The rest n=17(5.6%) of the patients had low level of emotional support.

On the other hand, n=166(55.0) of the respondents receive high level of interpersonal support followed by n=133(44.0) patients who had moderate level of interpersonal support and the rest n=3(1.0%) of the respondents had lower level of interpersonal support. In addition, n=98(32.5%) of patients received high level of an instrumental support, while n=179(59.3%) of the respondents received moderate level of instrumental support and the rest n=25(8.3%) of them had low level of instrumental support.

In general, n=121(40%) of the patients have high level of social support, n=166(55%) of the respondents received moderate level of social support and also the rest n=15(5.0%) of the patients have lower level of social support. This indicates, as there is huge variation among patients level of support that they are receiving.

4.4 Socio-demographic characteristics of patients and social support

Table 7: Association of socio-demographic characteristics of Psychiatric outpatients and social support in JUSTH psychiatric clinic, Jimma, Ethiopia, April 2017(n=302)

Variables	Categories	Levels of social support (%)		
		Higher	Moderate	Lower
Age	18-24	6(19.4%)	25(80.6%)	0(0%)
	25-31	28(35.4%)	49(62.0%)	2(2.5%)
	32-38	20(29.9%)	47(70.1%)	0(0%)
	39-45	10(20.8%)	37(77.1%)	1(2.1%)
	46-52	4(9.3%)	37(86.0%)	2(4.7%)
	53-59	4(28.6%)	10(71.4%)	0(0%)
	60-66	10(50.0%)	9(45.0%)	1(5.0%)
Sex	Male	37(21.6%)	130(76.0%)	4(2.3%)
	Female	45(34.4%)	84(64.1%)	2(1.5%)
Religion	Orthodox	24(24.5%)	73(74.5%)	1(1.0%)
	Muslim	52(30.2%)	116(67.4%)	4(2.3%)
	Protestant	6(20.7%)	22(75.9%)	1(3.4%)
	Catholics	0(0%)	3(100%)	0(0%)
Marital status	Unmarried	26(22.2%)	89(76.1%)	2(1.7%)
	Married	33(25.6%)	93(72.1%)	3(2.3%)
	Divorced	13(31.0%)	28(66.7%)	1(2.4%)
	Widowed	10(71.4%)	4(28.6%)	0(0%)
Educational status	No formal education	10(25.6%)	29(74.4%)	0(0%)
	Able to read and write	4(21.1%)	15(78.9%)	0(0%)
	Elementary	23(25.6%)	65(72.2%)	2(2.2%)
	High school	19(41.3%)	27(58.7)	0(0%)
	Certificate or Diploma	14(25.0%)	41(73.2%)	1(1.8%)
	University degree	12(23.1%)	37(71.2%)	3(5.8%)
Occupation	Housewife	13(61.9%)	7(33.3%)	1(4.8%)
	Farmer	6(12.5%)	42(87.5%)	0(0%)
	Student	7(22.6%)	24(77.4%)	0(0%)
	Merchant	10(32.3%)	20(64.5%)	1(3.2%)
	Government employee	17(26.6%)	45(70.3%)	2(3.1%)
	Unemployed	23(26.7%)	62(72.1%)	1(1.2%)
	*Others	6(28.6%)	14(66.7%)	1(4.8%)
Place of residence	Urban	49(25.3%)	140(72.2%)	5(2.6%)
	Rural	33(30.6%)	74(68.5%)	1(0.9%)

Source: Researcher's survey data

As it is depicted on table 7, 60-66 age groups of patients had higher level of social support followed by respondents who are included 25-31 age group and patients within age groups 46-52 had the lowest social support from all age groups. In addition, in terms of sex female patients received higher social support than males. With regarded to religion, patients who are Muslims had higher level of social support followed by respondents who are Orthodox, protestant and Catholics respectively. Moreover, widowed patients had higher level of social support followed by respondents who are divorced, married and unmarried patients respectively. In terms of educational status, patients who have secondary educational status received higher levels of social support followed by respondents who have primary education and patients with no formal educational status.

Furthermore, in terms of occupation patients who are housewives had higher level of social support followed by merchants and unemployed patients. On the other hand, with regarded to place of residence, patients who live in rural areas relatively received higher level of social support than patients who live in urban areas.

4.5 Association between socio-demographic characteristics of PWMI outpatients and treatment effectiveness

Table 8: Association of socio-demographic characteristics of Psychiatric outpatients and treatment effectiveness in JUSTH psychiatric clinic, Jimma, Ethiopia, April 2017(n=302)

Variables	Characteristics	Treatment effectiveness (%)			Chi-square	X2	95 % CI
		Better Change	Medium Change	Lower Change			
Age	18-24	5(16.1%)	26(83.9%)	0(0%)	109.389	0.000	0.000-0.010
	25-31	7(8.9%)	71(89.9%)	1(1.2%)			
	32-38	24(35.8%)	39(58.7%)	4(6.0%)			
	39-45	12(25.0%)	32(66.7%)	4(8.3%)			
	46-52	6(14.0%)	27(62.8%)	10(23.3%)			
	53-59	0(0%)	6(42.9%)	8(57.1%)			
	60-66	0(0%)	8(40.0%)	12(60.0%)			
Sex	Male	12(7.0%)	127(74.3%)	32(18.7%)	37.745	0.000	0.000-0.010
	Female	42(32.1%)	82(62.6%)	7(5.3%)			
Religion	Orthodox	16(16.3%)	73(74.5%)	9(9.2%)	36.536	0.000	0.000-0.010
	Muslim	21(12.2%)	121(70.3%)	30(17.4%)			
	Protestant	15(51.7%)	14(48.3%)	0(0%)			
	Catholics	2(66.7%)	1(33.3%)	0(0%)			
Marital status	Unmarried	15(12.8%)	88(75.2%)	14(12.0%)	54.179	0.000	0.000-0.010
	Married	39(30.2%)	84(65.1%)	6(4.7%)			
	Divorced	0(0%)	30(71.4%)	12(28.6%)			
	Widowed	0(0%)	7(50.0%)	7(50.0%)			
Educational status	No formal education	0(0%)	28(71.8%)	11(28.2%)	57.444	0.000	0.000-0.010
	Able to read and write	0(0%)	13(68.4%)	6(31.6%)			
	Elementary	9(10.0%)	71(78.9%)	10(11.1%)			
	High school	7(15.2%)	37(80.4%)	2(4.3%)			
	Certificate or Diploma	16(28.6%)	36(64.3%)	4(7.1%)			
	University degree	22(42.3%)	24(46.2%)	6(11.5%)			
Occupation	Housewife	2(9.5%)	17(81.0%)	2(9.5%)	64.553	0.000	0.000-0.010
	Farmer	1(2.1%)	40(83.3%)	7(14.6%)			
	Student	13(41.9%)	18(58.1%)	0(0%)			
	Merchant	83.7(26.1%)	23(73.9%)	0(0%)			
	Government employee	24(37.5%)	35(54.7%)	5(7.8%)			
	Unemployed	5(5.8%)	61(70.9%)	20(23.3)			
	*Others	1(4.8%)	15(71.4%)	5(23.8%)			
Place of residence	Urban	53(27.3%)	133(68.6%)	8(4.1%)	57.444	0.000	0.000-0.010
	Rural	1(0.9%)	76(70.4%)	31(28.7%)			

Age

The Chi-square test indicated that there is a relationship between age of PWMI and treatment effectiveness of outpatients and the relationship is statistically significant at Pearson's Chi-square 109.389 and sig. (2-sided) = 0.000). As it is depicted on table 8, 32-38 age group of PWMI had better effectiveness of treatment followed by respondents who are included 39-45 age group and patients within 60-66 age groups had the lowest treatment effectiveness level from all age groups. In addition, spearman's correlation shows as age of patients have 0.256 correlation with treatment effectiveness and it is calculated as age of the patient has 6.5% contribution to the effectiveness of treatment.

Having the survey finding in mind, in-depth interviews and focus group discussions with purposively selected psychiatric professionals and clinical nurses also supports the finding as age of patients have a relationship with the treatment effectiveness of treatment. A 2 year experienced male psychiatric professional interviewee said:

> *Most of the times in my experience PWMI within age group 30-50 years old have better results and could not develop side effects within short time of medication. On the other hand, children and aged patients have very slower changes within expected dates of illness recovery and are prone to side effects within short time of medication.*

Sex

The Chi-square test point out that there is a relationship between sex of PWMI and treatment effectiveness of outpatients and the relationship is statistically significant at Pearson's Chi-square 37.745 and sig. (2-sided) = 0.000). As it is depicted on table 8, female patients had better changes than males. Besides, spearman's correlation also confirms as sex of patients' have -0.346 correlation with treatment effectiveness and it is calculated as11.9% of the treatment effectiveness of patients' is explained by sex of patients.

Beside the survey findings, results from qualitative findings also revealed as sex and effectiveness of patients' treatment have relation. As it is shown in table 10, n=50(51.0%) of caregivers of PWMI believed as since females are better in drug use and or in having any other addictions they recover faster than males. On the other hand, n=20(20.4%) caregivers of PWMI

believed as in view of the fact that male are naturally stronger than females, males recover faster than their counterparts.

Furthermore, in-depth interviews and focus group discussions with purposively selected psychiatric professionals and clinical nurses also shows as sex and effectiveness of patients' treatment have relation and females have better changes than males. As most of FGD participants and a 3 year experienced female clinical nurse said:

Females are showed faster changes within expected dates than males because of males behavior of non adherence to treatment instructions, repeated treatment schedule non responsiveness and drug use (specially the culture of chat chewing in Jimma zone).

Religion

The Chi-square test indicated that there is a relationship between religion of PWMI and treatment effectiveness of outpatients and the relationship is statistically significant at Pearson's Chi-square 36.536 and sig. (2-sided) = 0.000). As it is presented on table 8, in terms of religion, patients who are Catholics had better effectiveness of treatment followed by respondents who are Protestants, Orthodox and Muslims respectively. In addition, spearman's correlation shows as patients' religion have -0.103 correlation with treatment effectiveness and it is calculated as 1.0% of the treatment effectiveness of patients' is explained by religion of patients.

Having the survey finding in mind, as indicated by interviewees, a variation in religion of PWMI outpatients' affects their treatment effectiveness. Regardless of illness type there is variation on the effectiveness of treatment within expected duration because of PWMI outpatients' religion. A 2 year experienced female psychiatric professional interviewee said:

Yes, though it has very little effect because of the practices of people within religions most of the time these practices have effects on the level of patients' treatment effectiveness. As a result of, the cultures of chat with Muslims and huge alcoholics use in orthodox religions, Protestants and Catholics have better treatment effectiveness.

Moreover, most of the FGD participants also supported the idea as patients' religion had direct association with treatment effectiveness.

Marital status

The Chi-square test indicated that there is a relationship between marital status of PWMI and treatment effectiveness of outpatients and the relationship is statistically significant at Pearson's Chi-square 54.179 and sig. (2-sided) = 0.000). As it is described on table 8, married patients had better effectiveness of treatment followed by respondents who are unmarried, divorced and widowed patients respectively. In addition, spearman's correlation shows as marital status of patients have 0.256 correlation with treatment effectiveness and it is calculated as marital status of the patient has 1.1% contribution to the patients' treatment effectiveness.

Besides, most of the FGD participants and key interview informants also agreed as marital status of PWMI had direct association with treatment effectiveness. Specially, they all approved as married patients recover faster than others do. A 4 year experienced female clinical nurse interviewee said:

> *In regardless of other problems in a family, situations of the patient and illness type mostly married patients showed better changes within expected dates of illness recovery. In addition, they are also better in developing side effects and mostly have lower level of illness relapse.*

Educational status

The Chi-square test indicated that there is a relationship between educational status of patients and their treatment effectiveness and the relationship is statistically significant at Pearson's Chi-square 57.444 and sig. (2-sided) = 0.000). As it is presented on table 8, in terms of educational status, patients who have university degree had better effectiveness of treatment followed by respondents who have certificate or diploma, primary education, secondary, no formal education and able to read and write educational status respectively. In addition, spearman's correlation shows as patients' educational status have -0.359 correlation with treatment effectiveness and it is calculated as 12.9% of the treatment effectiveness of patients' is explained by educational status of patients.

The idea of psychiatric professionals, clinical nurses and FGD participants also supports the survey findings. They all agreed as the level of educational status of patients increases the effectiveness of patients treatment also increases. A 3 year experienced male clinical nurse interviewee said:

In terms of effective medication follow-ups, level of responsiveness, schedule control and respecting professionals' instructions well educated patients are better and it also helps them to improve their treatment effectiveness.

This explains as both the quantitative and qualitative findings presented as educational status have a relation with the effectiveness of patients' treatment.

Occupation

The Chi-square test indicated that there is a relationship between occupation of PWMI and treatment effectiveness of outpatients and the relationship is statistically significant at Pearson's Chi-square 64.553 and sig. (2-sided) = 0.000). In addition, spearman's correlation shows as occupation of patients have 0.225 correlation with treatment effectiveness and it is calculated as patients' occupational status has 5.1% contribution to the effectiveness of treatment.

Furthermore, mostly interview and FGD participants also stated as occupational status of the patient had direct association with treatment effectiveness. Nearly all of informants, agreed as the betterment of patients' occupational status matters for the better results of their treatment effectiveness. Though having an occupation by itself is, quite vital good occupational status with enough income helps them to have effective treatment within expected dates.

Place of residence

The Chi-square test indicated that there is a relationship between place of residence of patients and their treatment effectiveness and the relationship is statistically significant at Pearson's Chi-square 57.444 and sig. (2-sided) = 0.000). As it is presented on table 8, in terms of place of residence, patients who live in urban areas relatively had better effectiveness of treatment than respondents who live in rural areas. In addition, spearman's correlation shows as patients' place of residence have 0.441 correlation with treatment effectiveness and it is calculated as 19.4% of the treatment effectiveness of patients' is explained by place of residence of patients.

Having the survey finding in mind, as indicated by interviewees and FGD participants a variation in place of residence results variation in their level of treatment effectiveness. Regardless of illness type there is variation on the effectiveness of treatment within expected duration because of PWMI outpatients' place of residence. A 2 year experienced female psychiatric professional interviewee and 3 year experienced male clinical nurse said:

Like other socio-demographic indicators place of residence also has a direct relation with the treatment effectiveness of patients. As a result of their awareness level, belief systems and educational status patients from urban areas showed better improvements within expected dates and they understand well for the instructions given but patients from rural areas mostly showed carelessness.

In conclusion, results revealed as variation in the socio-demographic indicators of patients results variation in the level of their treatment effectiveness.

4.5 Association between having social and caregiver support with the status of treatment effectiveness

Respondents who have a special caregiver where also asked their relation with the caregiver and it showed a significant variation of treatment effectiveness even among patients who had caregivers. To identify patients who have social support respondents were questioned by dividing it into three sub parts and these were emotional support, interpersonal support and instrumental support. Each part had three items to help the research gather enough data of respondents and relationship analysis with treatment effectiveness of PWMI using a statistical method chi-square and presented as follows:

Table 9: Association of having social and special caregiver support with the patients' treatment effectiveness status in JUSTH psychiatric clinic, Jimma, Ethiopia, April 2017(n=30)

variables	Items Included	Responses	Treatment effectiveness (%)			Chi-square	X2	95 % CI
			Better changes	Medium changes	Lower changes			
Caregiver	Someone to specially take care	Yes, family	39(23.5%)	126(75.9%)	1(0.6%)	172.734	0.000	0.000-0.010
		Yes, brother	0(0%)	2(100%)	0(0%)			
		Yes, husband	4(23.5%)	13(76.5%)	0(0%)			
		Yes, wife	7(25.0%)	21(75.0%)	0(0%)			
		Yes, children	3(13.0%)	19(82.6%)	1(4.3%)			
		Yes, friend	0(0%)	6(100%)	0(0%)			
		No, I do not have	1(1.7%)	22(36.6%)	37(61.7%)			
Emotional support	Someone to talk about personal or private things	Yes, I have	54(22.6%)	172(72.0%)	13(5.4%)	65.062	0.000	0.000-0.010
		No, I have not	0(0%)	37(58.7%)	26(41.3%)			
	Someone to turn for advice	Yes, I have	53(21.1%)	188(74.9%)	10(4.0%)	107.546	0.000	0.000-0.010
		No, I have not	1(2.0%)	21(41.1%)	29(56.9%)			
	Anyone who cares and loves	Yes, I have	52(21.3%)	182(74.6%)	10(4.1%)	99.813	0.000	0.000-0.010
		No, I have not	2(3.5%)	27(46.5%)	29(50.0%)			
Inter personal support	Knowing & making friends with other people	Yes, it helps me to feel happy	54(19.9%)	190(70.2%)	27(9.9%)	24.490	0.000	0.000-0.010
		No, I have not	0(0%)	19(61.3%)	12(38.7%)			
	Participating in any social activity	Yes, I have	50(20.6%)	168(69.1%)	25(10.3%)	19.101	0.001	0.000-0.021
		No, I do not	4(6.8%)	41(69.5%)	14(23.7%)			
	Several people to enjoy & spending time with	Yes, I have	52(21.4%)	172(70.8%)	19(7.8%)	34.061	0.000	0.000-0.010
		No, I have not	2(3.4%)	37(62.7%)	20(33.9%)			
Instrumental support	Financial support	Yes, I have	52(22.9%)	162(71.4%)	13(5.7%)	50.094	0.000	0.000-0.010
		No, I have not	2(2.7%)	47(62.7%)	26(34.7%)			
	Material support	Yes, I have	5020.7%)	166(68.9%)	25(10.4%)	11.463	0.003	0.000-0.010
		No, I have not	4(6.6%)	43(70.5%)	14(23.0%)			

Having a caregiver

The Chi-square test presented as there is a association between treatment effectiveness of patients and having a caregiver. The relationship is also statistically significant at Pearson's Chi-square 172.734 and sig. (2-sided) = 0.000). In addition, patients who were cared by their wives showed better treatment effectiveness followed by patients who were care by their family members and husbands. Spearman's correlation shows as having a caregiver has 0.459 correlations with patients' treatment effectiveness. As well, it is calculated as 21.1% of the treatment effectiveness of patients' is explained by the role of a caregiver.

Having the survey findings in mind, all of FGDs participants and key-informant interview informants agreed as caregivers have an essential contribution for psychiatric patients' treatment effectiveness. Having someone who specially provides care for patients' helps to improve their treatment effectiveness. A 3 years experienced psychiatric professional said:

> *Caregivers are the backbones of psychiatric patients' treatment effectiveness. Starting from bringing patients to hospitals, they played a significant role in the treatment process. They have the ability to improve patients confidence, feeling of happiness and motivated them to follow instructions of psychiatrists for acquiring better achievements with in short period of time. They also provide various emotional, interpersonal and instrumental supports, which assists patients' treatment effectiveness. The burden of caregivers is very huge by caring them until their mental health condition is improved. Therefore, caregivers play a major role for the effectiveness of psychiatric patients' treatment.*

Both the quantitative and qualitative findings revealed, as caregivers have an essential role for a better treatment effectiveness of patients. Moreover, this study also confirmed as patients who have caregivers to specifically, provide cares for them showed better treatment effectiveness than those who do not have a caregiver.

Emotional support

A. Having someone to talk about something personal or private

The Chi-square test signify that there is a relationship between having someone to talk about something personal or private and treatment effectiveness and the relationship is statistically significant at Pearson's Chi-square 65.062 and sig. (2-sided) = 0.000). In addition, spearman's

correlation shows as having someone to talk about something personal or private have 0.425 correlation with treatment effectiveness and it is calculated as 18.1% of the treatment effectiveness of patients' is explained by having someone to talk about something personal or private.

B. Having someone to turn for advice about making changing life

The Chi-square test showed that there is a relationship between treatment effectiveness and having someone to turn for advice about making changing life. Also, the relationship is statistically significant at Pearson's Chi-square 107.546 and sig. (2-sided) = 0.000). In addition, spearman's correlation shows as having someone to turn for advice about making changing life has 0.479 correlations with treatment effectiveness. As well, it is calculated as 22.9% of the treatment effectiveness of patients' is explained by having someone to turn for advice about making changing life.

C. Having any one who cares and loves you

The Chi-square test presented as, there is a relationship between patients treatment effectiveness and on having any one who cares and loves. Additionally, the relationship is statistically significant at Pearson's Chi-square 99.813 and sig. (2-sided) = 0.000). In addition, spearman's correlation shows as having someone to care and loves you has 0.435 correlations with treatment effectiveness. As well, it is calculated as 18.9% of the treatment effectiveness of patients' is explained by having any one who cares and loves.

In general, all the items of emotional support are statistically significant and it shows as emotional support has association with treatment effectiveness. Beside, the survey findings key informant interview and FGD participants also reveal as emotional support very essential for the effectiveness of patients treatment. As a 1year experienced psychiatric professional said:

> *Mostly all psychiatric patients need strength of mind, positive attitudes, good feelings and* calm *emotional status for the effectiveness of their treatment. Emotional support is quite vital and basic necessity of patients. Then emotional support differs from the other, since its absence may worsen and complicated the issue within short period.*

All FGD participants also reveal its significance by saying as it is a nutrient of patients' mind that has to be given frequently. In supporting this idea, a 2 year experienced female clinical nurse said:

The first and most important thing in treating patients is assurance of emotional support since it is all about mind or mental status. Firstly, we have to satisfy and keep their emotional status, avoid any confusion and try to make them feel happy. Therefore, emotional support is not only a contributor of effective treatment whereas it is one kind of treatment by itself.

Inter personal support

A. Knowing & making friendship with other people outside of family

The Chi-square test presented that there is a relationship between treatment effectiveness and having any one who cares and loves and the relationship is statistically significant at Pearson's Chi-square 24.490 and sig. (2-sided) = 0.000). In addition, spearman's correlation shows as having someone to turn for advice about making changing life has 0.176 correlations with treatment effectiveness. As well, it is calculated as 3.1% of the treatment effectiveness of patients' is explained by having someone to turn for advice about making changing life.

B. Participating in any social activity

The Chi-square test presented that there is a relationship between treatment effectiveness and having any one who cares and loves and the relationship is statistically significant at Pearson's Chi-square 19.101 and sig. (2-sided) = 0.010). In addition, spearman's correlation shows as having someone to turn for advice about making changing life has 0.204 correlations with treatment effectiveness. As well, it is calculated as 4.2% of the treatment effectiveness of patients' is explained by having someone to turn for advice about making changing life.

C. Having several people to enjoy & spending time with

The Chi-square test presented that there is a relationship between treatment effectiveness and having any one who cares and loves and the relationship is statistically significant at Pearson's Chi-square 34.061 and sig. (2-sided) = 0.000). In addition, spearman's correlation shows as having someone to turn for advice about making changing life has 0.313 correlations with treatment effectiveness. As well, it is calculated as 9.8% of the treatment effectiveness of patients' is explained by having someone to turn for advice about making changing life.

Therefore, as it is presented above, all items of interpersonal support have association with the effectiveness of psychiatric patients' treatment. They helped patients to recover faster, to avoid tension, to feel happy and to avoid feelings of stigmatization. Furthermore, most of the FGD participants agreed on the weight of interpersonal support in treating psychiatric patients. A 5 year experienced male psychiatric professional said:

Having several people around, enjoying and spending time with them and participating in social activities assist them to avoid feelings of loneliness, discrimination, to lower tension and to make them happy which are essential for their treatment effectiveness.

Instrumental support

A. Having financial support

The Chi-square test presented that there is a relationship between treatment effectiveness and having any one who cares and loves and the relationship is statistically significant at Pearson's Chi-square 50.094 and sig. (2-sided) = 0.000). In addition, spearman's correlation shows as having someone to turn for advice about making changing life has 0.381 correlations with treatment effectiveness. As well, it is calculated as 14.5% of the treatment effectiveness of patients' is explained by having someone to turn for advice about making changing life.

B. Having material support

The Chi-square test presented that there is a relationship between treatment effectiveness and having any one who cares and loves and the relationship is statistically significant at Pearson's Chi-square 11.463 and sig. (2-sided) = 0.003). In addition, spearman's correlation shows as having someone to turn for advice about making changing life has 0.194 correlations with treatment effectiveness. As well, it is calculated as 3.8% of the treatment effectiveness of patients' is explained by having someone to turn for advice about making changing life.

Moreover, data form key informant interview and FGDs confirms as all kinds of instrumental supports are also quite vital for patients treatment effectiveness. Mostly, to make patients mind free and happy solving their economic problems helps them to avoid tension and to recover faster. A 2 year experienced clinical nurse said:

Starting from bringing the patient to health centers, for transportation, to buy a medication, for providing basic needs like food, shelter, cloths and so on having both financial and material support are necessary. Most of the time, regardless of their illness having an economic problem worsens and complicates their health status. Therefore, having an instrumental support helps for the effectiveness of patients treatment.

Furthermore, as most of FGD participants, a 3 year experienced female clinical nurse said:

Now a day's for the effectiveness of treatment as various findings suggested the bio-psychosocial model is more preferable than others are and we use this method. Accordingly, psychiatrist only provides the medical or biological treatment with sometimes-psychological support and the rest are expected from caregivers and the community in general. Therefore, as we can see mostly the psychological and social supports are more, and is expected from the society in which PWMI outpatients live. Therefore, the role of social support is very essential for the effectiveness of PWMI outpatients' treatment within expected dates.

In general, as findings of the study indicated, having social support facilitates psychiatric patients' treatment effectiveness. Most of the professionals agreed on, having a well-built social support system has a key role for the effectiveness of patients' treatment.

4.6 Association between levels of social support and patients' treatment effectiveness status

Table 10: Association of level of support Psychiatric outpatients' have and treatment effectiveness in JUSTH psychiatric clinic, Jimma, Ethiopia, April 2017(n=302)

Types of support	**Level of social support**	**Treatment effectiveness (%)**						**Chi-square**	**X2**	**95 % CI**
		Better Change		**Medium Change**		**Lower Change**				
		N	**%**	**N**	**%**	**N**	**%**			
Emotional support	High	47	47.0	41	41.0	12	12.0	88.410	0.000	0.000-0.010
	Moderate	7	3.8	153	82.6	25	13.6			
	Low	0	0.0	15	88.0	2	11.8			
Interpersonal support	High	48	28.9	97	58.4	21	12.7	52.225	0.000	0.000-0.010
	Moderate	6	4.5	112	84.1	15	11.4			
	Low	0	0.0	0	0.0	3	100.0			
Instrumental support	High	41	42.3	45	45.4	12	12.4	63.513	0.000	0.000-0.010
	Moderate	12	6.7	147	82.1	20	11.2			
	Low	1	4.0	17	68.0	7	28.0			

Levels of emotional support

The Chi-square test indicated that there is a relationship between levels of emotional supports of patients and their treatment effectiveness and the relationship is statistically significant at Pearson's Chi-square 88.410 and sig. (2-sided) = 0.000). As it is presented on table 10, in terms levels of emotional support, patients who have higher level of emotional support had better effectiveness of treatment followed by respondents who moderate level of emotional support.

Having the survey finding in mind, data from interview and FGDs also revealed, as higher levels of emotional supports are very essential for better treatment effectiveness of patients. Above all, since mental illness could be highly affected by disturbances of emotions patients who had god emotional supports recover faster. As a 2 year experienced a female clinical nurse said:

> *Emotional supports help patients to have stabile and less disturbed psychological status and positive self-esteem, which is quite vital for their recovery. It helps them to feel relaxed, happy, to accept their mental condition and cooperate for their treatment effectiveness. If patients receive less emotional supports it will highly affect their mental status.*

Therefore, having high level of emotional support is related with better treatment effectiveness of people with mental illness.

Levels of inter personal support

The Chi-square test indicated that there is relationships between levels of inter personal supports of patients and their treatment effectiveness. The relationship is statistically significant at Pearson's Chi-square 63.513 and sig. (2-sided) = 0.000). As it is presented on table 10, with regarded to the levels of inter personal support, patients who have higher level of inter personal support had better effectiveness of treatment followed by respondents who moderate level of inter personal support.

Similarly, results from FGD and interview respondents show as higher levels of inter personal supports are helpful for better treatment effectiveness of patients. As a 2 year experienced male psychiatric professional said:

> *Having several friends and spending time, participating in any social participation and having strong relation without any discrimination helps patients to avoid tension, to feel happy, and to avoid feeling of loneliness which assist patients to acquire better treatment effectiveness.*

Hence, both the qualitative and quantitative findings showed as having high level of inter personal support is related with better treatment effectiveness of people with mental illness.

Levels of instrumental support

The Chi-square test indicated that there is relationship between levels of instrumental supports of patients and their treatment effectiveness. The relationship is statistically significant at Pearson's Chi-square 52.225 and sig. (2-sided) = 0.000). As it is presented on table 10, with regarded to the levels of instrumental support, patients who have higher level of instrumental support had better effectiveness of treatment.

Findings from FGDs and interviews also revealed as patients with better instrumental aid have better treatment effectiveness. As a 3 year experienced psychiatrist said:

> *Starting from bringing the patient to hospitals (health centers) having good economic support helps patients to fulfill their problems to buy medicines, having food and shelter. In addition to their current mental health status, having economic problem worthiness their condition. Therefore, by avoid tension and other economic troubles having higher level of instrumental support is essential to have better treatment effectiveness.*

In general, all the survey, FGDs and interview respondents agreed as patients who have high levels of emotional, inter personal and instrumental support had better treatment effectiveness status. Thus, it is possible to conclude as the level of social support that patients received had a significant positive association with the treatment effectiveness of PWMI.

CHAPTER FIVE

DISCUSSION AND CONCLUSIONS

5.1 DISCUSSION

5.1.1 Having social support and psychiatric patients' treatment effectiveness

In this study, among 302 psychiatric outpatients, n=188(62.2%) of them had better changes within expected dates of illness recovery and had very lower level of illness relapse. In addition, n=79(26.2%) outpatients had medium changes within expected dates of illness recovery and medium level of illness relapse. On the other hand, the rest n=35(11.6%) respondents had lower (little) changes within expected dates of illness recovery and had higher level of illness relapse.

The study findings revealed that, psychiatric patients who have social support systems have showed better treatment effectiveness than those who do not have. All patients who had better emotional, interpersonal, and instrumental supports had showed better changes within expected dates of illness recovery and had very lower level of illness relapse. The survey finding reveals as social support and psychiatric patients have a significant association. Moreover, data from FGDs participants and key informant interview respondents also agreed as social support has relation with patients' treatment effectiveness. Having social support helps psychiatric patients to avoid tension, to feel happy, to avoid feelings of loneliness, to improve their situation and to solve their problems. Thus, the study presented as social support aids to facilitate patients' treatment effectiveness. Findings of Baker, *et al.* (1993); Ozbay *et al.*, (2007); McCorkle *et al*, (2008); Layard *et al.*, (2013); Reblin & Uchino (2016) agreed with the findings of this study. However, the findings of Killaspy *et al.*, (2006) and Omolayo *et al.*, (2013) are not in agreement with the study findings.

Furthermore, the survey findings confirmed that having higher levels of social supports and patients' treatment effectiveness had a positive relation. It reveals as psychiatric patients who had good social supports, had better changes within expected dates of illness recovery. As all the FGDs participants confirm it, though every illness has its own expected date of recovery, having good social support helps patients to show better changes within the expected dates of illness recovery. The plausible explanation of this finding is that having social support allow patients to

be stable, to avoid tension, to develop self confidence and to feel happy, which assist patients' to have faster treatment effectiveness. Therefore, the study showed that receiving higher levels of emotional, interpersonal and instrumental supports lend a hand for patients to better changes within expected dates of illness recovery. Findings of Baker, *et al.* (1993); Ozbay *et al.*, (2007); McCorkle *et al*, (2008); Layard *et al.*, (2013); Reblin & Uchino (2016) agreed with the findings of the study. Yet, findings of Killaspy *et al.*, (2006) and Omolayo *et al.*, (2013) are not in agreement with the study findings.

5.3 Having a caregiver and patients' treatment effectiveness

Survey findings of the study further showed as having a caregiver and patients' treatment effectiveness had a significant association. Psychiatric patients who had caregivers showed enhanced changes within expected dates of illness recovery and had very lower level of illness relapse than others have. Moreover, all interviewees and FGDs participants also support the survey findings. They agreed as caregivers have the ability to improve patients confidence, feeling of happiness and motivated them to follow instructions of psychiatrists for acquiring better achievements with in short period of time. Therefore, this study reveals as having someone who specially provides care for patients' helps to improve their treatment effectiveness. The findings reported by Layard *et al*. (2013); Eshetu *et al.*, (2014); Reblin & Uchino, (2016) supports the result of this study but, findings of Ademola, (2009) and Omolayo *et al.*, (2013) differ from the findings of this study.

5.4 Socio-demographic characteristics and patients' treatment effectiveness

In addition to these findings, the survey finding also reveals as all the patients' socio-demographic indicators have a significant association with their treatment effectiveness. As it is supported by all FGDs participants and interviewees, socio-demographic characteristics of psychiatric patients and had relationship with the effectiveness of treatment. Variations of patients' age, sex, marital status, religion, educational level, occupation and place of residence results variations on the levels of their treatment effectiveness. Every variable has its own contribution or effect for patients' treatment effectiveness. Findings by Pevalin, (2003); Jacobs *et al.*, (2010); Layard *et al*., (2013) agreed with the findings of the study. However, findings of Hendryx, Green and Perrin, (2009) disagreed with the findings of this study.

Furthermore, survey findings also showed that, caregivers' socio-demographic characteristics and psychiatric patients' treatment effectiveness had a significant association. Variations of caregivers' socio-demographic characteristics results caring variations among caregivers. Like the survey findings, all interviewees and FGDs participants also agreed as these caring variations among caregivers have relations with psychiatric patients' level of treatment effectiveness. The study findings showed that, all caregivers' socio-demographic indicators such as age, sex, religion, marital status, educational status, place of residence and relation have association with patients' treatment effectiveness. Findings by Pevalin, (2003); Jacobs *et al.*, (2010) and Layard *et al*., (2013) agreed with the findings of the study. However, findings of Hendryx, Green & Perrin, (2009) disagreed with the findings of this study.

There are a few limitations in this study. Firstly, the reported caregiver role could be an underestimate of the reality as there may be a recall bias associated with self-reporting provided supports. It may also may be affected by social desirability bias as the setting of data collection was the psychiatric outpatient department and some of the data collectors were staff members of the hospital. Secondly, cause-effect relationships cannot be established because of cross-sectional nature of the study design.

Nevertheless, the finding adds valuable information to our sociological understanding of the role of social support for the treatment effectiveness of PWMI in Ethiopian setting.

5.2CONCLUSIONS

Various literatures revealed as symptoms of mental illness often can be controlled effectively through prescription and/or psychotherapy. However, various attributes had been contributed and affected the effectiveness of mental illness treatment. Having this in mind, this study tried to identify the role of social support and caregivers for the effective treatment of mental illness. Thus, the study findings showed as patients with good social support systems and patient who have caregivers showed better treatment effectiveness. Therefore, results of the study presented as having social support and caregivers, helps psychiatric patients' treatment effectiveness.

In conclusion, since providing an emotional, interpersonal and instrumental supports of the society helps psychiatric patients' to have better treatment effectiveness, raising the awareness of the community on the role of social support is essential. Additionally, seeing as someone who

can provide a special care for psychiatric patients' also helps them to have better treatment effectiveness, facilitating situations for patients' to have a caregiver is significant. Furthermore, raising awareness of the community about the relations of socio-demographic characteristics of patients as well as caregivers with the effectiveness of psychiatric patients' treatment is vital.

5.3RECOMMENDATIONS

In the course of this study, attempts have been made to point out the roles of social support and caregivers for the effectiveness of mental illness treatment. The findings show, as having higher levels of social support and a caregiver contributes for PWMI treatment effectiveness. Therefore, based on the results of the study the following recommendations are forwarded.

- The society should have to avoid stigmatizing practices and support them to interact with other people.
- By understanding, their mental condition the society should let them to participate in any social activities by avoiding discrimination.
- The government and the mass media should have to work together on how to raise the awareness of the people on roles of social support for the treatment effectiveness of PWMI.
- Since outpatients everyday life circulates is within the society the government should have to develop community based treatment mechanisms.
- Mental illness and health policies should have to be drafted on community based strategies and principles.
- The next generation of studies must be able to explain the contexts and mechanisms for why such associations exist and how much helpful they are by increasing interdisciplinary perspectives.
- Further sociological studies are also required on the quality and dimensions of social support and its impact on treatment effectiveness of PWMI.

References

Ademola, A.(2009).Family participation in treatment, post-discharge appointment and medication adherence at a Nigerian psychiatric hospital. *The British Journal of Psychiatry*, 194:86–87.

Almedom, A.(2005).Social capital and mental health: An interdisciplinary review of primary evidence. *Social Science & Medicine,* 6(1): 943–964

Amzat, J. and Razum, O.(2014). *Medical Sociology in Africa*. Switzerland: Springer International Publishing.

Baker, F., Warren, B., Muraida, J. and Muraida, G.(1993). A survey of retirement planning by Texas psychiatrists. *Journal of Geriatric Psychiatry and Neurology*,6(1):9-14.

Baltruoaityte, G.(2003).Theorizing Mental Disorder: A Sociological Approach. *Journal of sociology,* 1(1),1392-3358.

Bendelow, G.(2004).Sociology and Concepts of Mental illness. *Philosophy, Psychiatry, & Psychology,* 11(2):145-146.

Berhanu, N. And Solomon, S.(2014). Trends and Possible Causes of Mental Illness: the Case of Psychiatry Ward in Jimma University Specialized Hospital, Ethiopia. *European Scientific Journal,* 29(10): 308-316.

Bernal, G., Maldonado-Molina, M. and Scharrón del Río, M.(2002). Development of a Brief Scale for Social Support: Reliability and validity in Puerto Rico. *International Journal of Clinical and Health Psychology,3(2):*251-264.

Bessa, Y.(2012).Modernity Theories and Mental Illness: A Comparative Study of Selected Sociological Theorists. *International Journal of Humanities and Social Science,* 17(2):31-38.

Bhattacherjee, A.(2012). *Social Science Research: Principles, Methods, and Practices*. Florida: University of South Florida Tampa press.

Bhattacahrjee D., Singh N., Rai A., Kumar P., Verma A., and Munda S.(2011). Sociological Understanding of Psychiatric Illness: An Appraisal. *Delhi Psychiatry Journal*, 14(1),54-62.

Campbell, Cathy and Cornish, F. and Mclean, C.(2004). Social capital, participation and the perpetuation of health inequalities: obstacles to African-Caribbean participation in 'partnerships' to improve mental health. *Ethnicity and health*, 9 (3): 305-327.

Chemali, N, Borba, C., Henderson, T. and Markos, T.(2013). Making strides in women's mental health care delivery in rural Ethiopia: demographics of a female outpatient psychiatric cohort at Jimma University Specialized Hospital (2006–2008). *International Journal of Women's Health*, 5(1): 413–419.

Croghan, T. & Brown, J. (2010). *Integrating Mental Health Treatment Into the Patient Centered Medical Home*. Washington, DC: AHRQ Publication.

Corrigan, P.(2004). How Stigma Interferes With Mental Health Care. *Journal of Psychology,* 7(5): 614–625.

Daly, D.(2010). Disengaging from the Stigma of Mental Illness: A perspective gained from a participatory action research project with the Cork / Kerry Aware Support Group Facilitators. *Critical Social Thinking: Policy and Practice,* 2(1):125-139.

Eaton, J., McCay, L., Semrau, M., et al. (2013). Scale up of services for mental health in low-income and middle income countries. *PRIME Policy Brief 2*.

Eshetu, G. et al.(2014). Public stigma against family members of people with mental illness: findings from the Gilgel Gibe Field Research Center (GGFRC), Southwest Ethiopia. *Journal of Child Adolescent Psychiatry Mental Health*, 8(12):275-302.

Gee, C. and Rhodes, J.(2007). A social support and social strain measure for minority adolescent mothers: a confirmatory factor analytic study. *Child: care, health and development*, 34(1): 87–97.

Gerber, J. and Macionis, M. (2010). Sociology (7th Canadian ed.). Toronto: Pearson Canada.

Goffman, E.(1963).*Stigma*. London: Penguin.

Heekin, K. and Polivka, L.(2015).Environmental and Economic Factors Associated with Mental Illness. *The Claude Pepper Center: Florida State University*.

Hendryx, M., Green, C. and Perrin, N.(2009).Social Support, Activities, and Recovery from Serious Mental Illness: STARS Study Findings. *National Institutes of Health,* 36(3): 320–329.

Hussain, M. and Raihan, M.(2015).Patients' Satisfaction with Public Health Care Services in Bangladesh: Some Critical Issues. *Malaysian Journal of Medical and Biological Research,* 2(2): 115-126.

Iseselo, M. Kajula, L. & Yahya-Malima,Y.(2016). The psychosocial problems of families caring for relatives with mental illnesses and their coping strategies: *a qualitative urban based study in Dar es Salaam, Tanzania. BMC Psychiatry*, 16(1):146-166.

Jacobs, D. et al.(2010).Assessment and Treatment of Patients with Suicidal Behaviors. *APA Practice Guidelines:* available at http://www.psych.org/psych_pract/pg/reviewform.cfm.

Jenkins, R.(2003). Making psychiatric epidemiology useful: the contribution of epidemiology to government policy. *Int Rev Psychiatry,* 15(1): 188–200.

Killaspy, H., Bebbington, P., Blizard, R., Johnson, S., Nolan, F., Pilling, S. and King, M.(2006). REACT: A Randomised Evaluation of Assertive Community Treatment in North London. *BMJ*, 332: 815-819.

Layard, R., Chisolm, D., Patel, V., & Saxena, S. (2013). *Mental illness and unhappiness*, CEP Discussion Paper No. 1239. London: Centre for Economic Performance, London School of Economics and Political Science.

McCorkle, B. et al.(2008). Increasing Social Support for Individuals with Serious Mental Illness: Evaluating the Compeer Model of Intentional Friendship. *Journal of Community Mental Health*,10(8):111-149.

Ministry of Health. (2012). *National Mental Health Strategy (2012/2013-2015/2016)*. Retrieved on October 16, 2016 (http:// www.moh.gov.et)

Ministry of Health. (2013). *Health and Health Related Indicators*. Addis Ababa: Mykey printing press.

Ministry of Healthy Living and Sport.(2009). *Model Core Program Paper: Mental Health Promotion and Mental Disorders Prevention*. Canada*:* BC Health Authorities.

Minnebo, J. (2005). Psychological distress, perceived social support, and television viewing for reasons of companionship: A test of the compensation hypothesis in a population of crime victims. *Communications,* 30(1): 233-250.

Nanjunda, .(2014). *Social Construction of Health and Illness: A Theoretical Revising on Diverged Dimensions*.

National Alliance on Mental Illness.(2016). *On Pins and Needles: Caregivers o f Adults with Mental Illness*. Arlington: N. Fairfax Drive Suite.

National Institute of Mental Health. (2012).*Attitudes Toward Mental Illness: Results from the Behavioral Risk Factor Surveillance System*. Atlanta (GA); Centers for Disease Control and Prevention.

Omolayo, B., Mokuolu, B., Balogun, M., Omole O. and Olawa, D.(2013). Attitude of Care Givers towards Mental Illness, Social Support and Coping Strategy as Predictors of Relapse among Mental Patients. *American International Journal of Social Science,2(5),89-98.*

Ozbay, F. et al.(2007).Social Support and Resilience to Stress. *National Institutes of Health,*4(5): 35–40.

Pevalin, D. and Goldberg, D.(2003).Social precursors to onset and recovery from episodes of common mental illness. *Psychological Medicine*,33:299–306.

Pollett, H.(2007). Mental Health Promotion: A Literature Review. *Canadian Mental Health Association.*

Reblin, M. and Uchino, B.(2016). Social and Emotional Support and its Implication for Health. *Curr Opin Psychiatry*, 21(2): 201–205.

Rogers, A. and Pilgrim, D.(2005). A sociology of mental health and illness. New York: McGraw- Hill Education.

Sanchez, C. & Nurilign, A.(2015).Level of Mental Health Service Integration in Primary Health Care Units in Debre Markos Town, Ethiopia. *Science Journal of Public Health,* (http://www. sciencepublishinggroup.com/j/sjph).

Sarason, G., et al. (1998). Assessing social support: The Social Support Questionnaire. *Journal of Personality and Social Psychology, 44*, 127-139.

Scull, A.(2015).*The Sociological Study of Mental Illness: A Historical Perspective*.

Sripada, R., Pfeiffer, P., Rauch, S., and Bohnert, K.(2015). Social Support and Mental Health Treatment among Persons with PTSD: Results of a Nationally Representative Survey. *Psychiatric Services*, 66(1):65-71.

Strand, K., Chisholm, D., Abebaw F.and Johansson, K.(2015). Scaling-up essential neuropsychiatric services in Ethiopia: a coast-effective analysis. *Health Policy and Planning*, 31(1): 504–513.

Treece, D., Rangarajan, H. and Thompson, J.(2011).Past, Present, and Future of the Asylum. Innovation Incubator: *available at http://www.nethelper.com/article/Kirkbride_Plan*.

Weinstein, R.(1982).Goffman's Asylums and the Social Situation of Mental Patients. *Orthomolecular Psychiatry*, 11(4): 267-274.

World Health Organization.(2003).*Investing in Mental Health*. Geneva: Nove Impression, press.

World Health Organization.(2004).*Assessing mental health and psychosocial needs and resources*. Geneva: WHO press.

World Health Organization.(2004).*Prevention of Mental Disorders*. Geneva: WHO, press.

World Health Organization.(2010).*Empowerment in Mental Health – Working together towards Leadership*. Leuven: WHO, press.

World Health Organization.(2012).*Risks to Mental Health: An Overview of Vulnerabilities and Risk Factors*. Geneva: WHO Press.

World Health Organization.(2014).*Social Determinants of Mental Health*. Geneva: WHO, press.

Yamane, T.(1967). *Statistics: An Introductory Analysis*.(2nd Ed.). New York: Harper and Row.

Yosef, Z., Garumma, T. and Krah, W.(2015). Khat Use in Persons with Mental Illness in Southwest Ethiopia: A Cross- Sectional Study. *Journal of Addiction Research & Therapy*, 6(3):242-247.

Appendixes

Appendix I: Instruments of data collection

JIMMA UNIVERSITY
COLLEGE OF SOCIAL SCIENCES AND HUMANITIES, DEPARTMENT OF SOCIOLOGY
(MA IN SOCIOLOGY AND SOCIAL POLICY)

Survey Questionnaire prepared for mentally ill outpatient in JUSTH

This Questionnaire is designed to assess the role of social support and support providers in treating mental illness and to analyze the variations among support providers in providing support for mentally ill outpatients in JUSTH. The purpose of disseminating and collecting data using this questionnaire is to fulfill the research submitted to the School of graduate studies of Jimma University for the in partial fulfillment of the requirements for the Degree of Master of Arts in Sociology. Therefore, I kindly request you to answer the questions honestly, as far as your knowledge is concerned about the questions according to the instructions given.

All your responses will be kept confidential.

Part 1: General Information of the respondents

Instruction:

- ✓ Put this mark inside the box that best fits for your current status/situation & write the correct answer on the space provided.

1. Sex: Male ☐ Female ☐

2. Age: _____

3. Marital status:

Never married ☐ Married ☐ Divorce ☐ Widowed ☐

4. Religion: Orthodox ☐ Muslim ☐ Protestant ☐

Catholic ☐ If other please specify _____

5. Educational status: Illiterate ☐ Able to write and read ☐ Primary education ☐

High School complete ☐ Certificate or diploma ☐

☐

University degree or above

6. Occupation: _____

7. Where do you live?

Urban area ☐ Semi urban area ☐ Rural area ☐

Part 2: question about social support, caregivers and treatment of mental illness

Instruction:

- ✓ Put this mark inside the box that best fits for your current status/situation or write the correct answer on the space provided.

1. When do you come to this hospital at first?

_____

2. Do you feel, as you are getting better?

Yes, I strongly do ☐ No, I do not ☐

3. Do you have any one to support you?

Yes, I do ☐ No, I do not have ☐

3.1 If your answer for question number 3 is "Yes" who supports you?

_____

3.2 If your answer for number 3 is "No", please explain why you say so

_____

_____

_____

_____.

3.3. How helpful is the support for your treatment that you gain from others

Is very helpful ☐ Sometimes helping ☐ Is meaningless ☐

3.4 How much are your caregiver and other people who are important to you involved in your mental health treatment

Only when there is serious problem ☐ Sometimes ☐ Every day ☐

4. Do you have someone to talk to about something personal or private?

Yes, I do ☐ No, I do not ☐

5. Whom do you prefer a lot to be with you and to help you?

_____

Please explain why?

_____

_____

_____.

6. Do you have someone to turn for advice about making changing life?

   Yes, I do ☐ No, I do not ☐

   If your answer for question number 6 is "No" please explain why ?

   _____

7. Do you have several people to enjoy & spending time with you?

   Yes, I do ☐ No, I do not ☐

8. How many sisters & brothers do you have?

   _____

9. Do you have any contact with anyone outside of your family?

   Yes, I do ☐ Sometimes, with few persons ☐ No, I do not have any contact ☐

10. Did you participate in social activities like, various ceremonies, parties, movies, sports events, clubs, etc.?

    Yes, I did ☐ No, I did not ☐

    If your answer for question number 10 is "No" please explain why?

    _____

    _____.

11. What do you think about your contact with your caregiver is it deep or shallow?

    _____

    _____

    _____.

12. Do you have any one whom do you think really cares and loves you?

    Yes, I do ☐ I do not know ☐ No, I don't have ☐

13. Do you have someone who can financially aid you when it is necessary?

    Yes, I do and ☐ No, I don't think so ☐

    13.1 If your answer for question number 8 is "Yes" who?

    _____

Social Support Scale

INSTRUCTIONS: This scale is made up of a list of statements each of which may or may not be true about you. For each statement check, "Strongly agree" if you are sure it is helping you more and "Agree" if you think it is true somehow helping. Similarly, you should check, "Disagree" if you are sure the statement is false and "Strongly disagree" is you think it is false and disappoints you.

Items	Agree	Strongly agree	Disagree	Strongly disagree
I feel that there is no one I can share my most private worries and fears with				
There is someone I can turn to for advice about handling problems with my family				
When I need suggestions on how to deal with a personal problem, I know someone I can turn to				
There is someone who takes pride in my accomplishments				
I feel like I am always included by my circle of friends				
When I feel lonely, there are several people I can talk to				
There are several different people I often meet, enjoy and spending time with				
If I were sick and needed someone (friend, family member, or acquaintance) to take me to the doctor, I would have trouble finding someone				
There are several people that I trust to help solve my financial problems				
If I needed an emergency loan there is someone (friend, relative, or colleague) I could get it from				
If I faced a financial problem, I have no one to cover up my costs for food, home, transportation, etc.				
There are several people that I have to lend any material that I need				

Scoring:

Items 1, 8, 11, are reverse scored.

Items 1, 2, 3, 4, make up the Emotional Support subscale

Items 5, 6, 7, 8 make up the Interpersonal Support subscale

Items 9, 10, 11, 12 make up the Instrumental Support subscale.

All scores are kept continuous.

JIMMA UNIVERSITY
COLLEGE OF SOCIAL SCIENCES AND HUMANITIES, DEPARTMENT OF SOCIOLOGY AND SOCIAL WORK
(MA IN SOCIOLOGY AND SOCIAL POLICY)

Unstructured Interview guide prepared for mentally ill outpatient in JUSTH

1. Do you have any support from others?
2. Who is now caring and helping you while you are receiving the treatment at the hospital?
3. How do you describe about the support you get from your support providers?
4. What type of support is very essential that you do not have?
5. What do you think about your social interaction with others?
6. How do you describe your improvements in your mental health status?
7. What kind of potential problems you have that hinders your treatment process?
8. Is there something you want to say?

JIMMA UNIVERSITY

COLLEGE OF SOCIAL SCIENCES AND HUMANITIES, DEPARTMENT OF SOCIOLOGY AND SOCIAL WORK

(MA IN SOCIOLOGY AND SOCIAL POLICY)

Unstructured interview guide prepared for caregivers of mentally ill outpatient in JUSH.

1. For how long do you support him/her?
2. What do you think about your role for the treatment?
3. What do you specifically do to maximize the effectiveness of the treatment of your patient?
4. What kind of support is very helpful for the long lasting solution of the problem?
5. Do you think as having strong social support can shorten treatment duration? If yes how?
6. Do you think having strong relation with others can help for positive treatment outcomes?
7. What kind of mechanisms you would suggest to reduce treatment duration of mentally ill outpatients?
8. Is there something you want to say?

JIMMA UNIVERSITY
COLLEGE OF SOCIAL SCIENCES AND HUMANITIES, DEPARTMENT OF SOCIOLOGY
(MA IN SOCIOLOGY AND SOCIAL POLICY)

Survey Questionnaire prepared for Care givers of mentally ill outpatient in JUSTH

This Questionnaire is designed to assess the role of support providers in treating mental illness and to analyze the variations among support providers in providing support for mentally ill outpatients across various variables in JUSTH. The purpose of disseminating and collecting data using this questionnaire is to fulfill of the research submitted to the School of graduate studies of Jimma University for the in partial fulfillment of the requirements for the Degree of Master of Arts in Sociology. Therefore, I kindly request you to answer the questions honestly, as far as your knowledge is concerned about the questions according to the instructions given.
All your responses will be kept confidential.

Part 1: General Information of the respondents

- ✓ Put this mark inside the box that best fits for your current status/situation or write the correct answer on the space provided.

1. Sex: Male ☐ Female ☐

2. Age: _____

3. Marital status:

Never married ☐ Married ☐ Divorce ☐ Widowed ☐

4. What is your Religion?

Orthodox ☐ Muslim ☐ Protestant ☐

Catholic ☐ If Other please specify _____

5. Educational status: Illiterate ☐ Able to write and read ☐

Primary education ☐ Secondary Education ☐

Certificate or diploma ☐ University degree or above ☐

6. Occupation: _____

7. How much total income do your families gain per month?

_____

8. Where do you live?

☐ ☐ ☐

Urban Semi urban Rural

9. What is your relation with the patient?

_____

10. For how long do you support him/her?

_____

_____.

Part 2: question about social support and treatment of mental illness

- ✓ Put this mark inside the box that best fits for your current status/situation or write the correct answer on the space provided.

1. When did you find out as she/he has the problem?

_____

_____

_____

2. When did you come to this hospital?

_____

_____

3. Have you see any change on him/her after starting the treatment

Yes, I do ☐ No, I do not ☐

4. What kinds of supports are you providing for him/her?

_____

_____

_____

_____.

5. Do you think your support is helping him/her for the treatment?

Yes, I do ☐ No, I don't think so ☐

6. If you say "Yes" for question number 5, please explain how.

_____

_____

_____

_____.

7. Does he/she have any interaction with others?

   Yes, he/she does ☐ No, he/she doesn't ☐

   7.1 If your answer for question number 7 is "Yes" does this interaction has any positive contribution to his/her treatment

   Yes, it does ☐ No, it doesn't ☐

   If your answer is "Yes" please explain how

   _____

   _____

   _____

8. Do you motivate him/her to interact with other people?

   Yes, I do ☐ No, I don't ☐

9. Do you think sex variation of support providers has any significant difference in providing help?

   Yes, I do ☐ I do not know ☐ No, I do not think so ☐

   9.1 If your answer for question number 9 is "Yes" which sex do you think is better

   Male ☐ Female ☐

   Please explain why you say so

   _____

   _____

   _____

   _____

10. Do you believe that your support is enough for him/her?

Yes, I think so ☐ May be, I don't know ☐ No, I do not think so ☐

10.1 If you say "No" for question number 12, please explain why

_____

_____.

11. Does he/she has intimate friends before this problem?

Yes, he/she had ☐ No, he/she had not ☐

11.1 If your answer for question number 11 is 'No' please explain why

_____

_____

_____

_____.

11.2 If your answer for question number 11 is 'Yes' are they still with him/her?

Yes, they are ☐ No, they are not ☐

11.2.1 If your answer for question number 11.2 is 'No' please explain why

_____

_____

_____

JIMMA UNIVERSITY
COLLEGE OF SOCIAL SCIENCES AND HUMANITIES, DEPARTMENT OF SOCIOLOGY
(MA IN SOCIOLOGY AND SOCIAL POLICY)

FGD checklist prepared for psychologists, psychiatrists and nurses in JUSTH.

- Discussion on the importance of social support for the treatment of mentally ill outpatients
- Discussion on relationship between social support and treatment duration of mentally ill outpatients
- Discussion on the kinds of supports that mentally ill outpatient have to have
- Discussion on the role of support providers in treating mentally ill out patients
- Discussion on the possible variations of support providers in providing help for mentally ill outpatients

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(MA IN SOCIOLOGY AND SOCIAL POLICY)

Unstructured Interview guide prepared for physicians working on mental illness treatment at JUSTH

1. Do you believe that social factors can affect treatment of mentally ill outpatients?
2. What do you think about the relationship between social support and duration of mental illness treatment?
3. What do you think are the specific kinds of supports that mentally ill outpatients should have to get?
4. How do you explain the role of support providers in treating mentally ill outpatients?
5. Do you observe any variation on support giving because of support providers differentiations that they acquire?
6. What kind of treatment and support would you think is a long lasting solution for the problem?
7. Is there something you want to say?

Appendix II: Sampling Frame

TOTAL POPULATION OF MENTALLY ILL OUTPATIENTS WHO HAD APOINTMENTS IN BETWEEN MARCH13/2017 AND APRIL 13/2017 AND STAYED ABOVE SIX MONTH ON THE LIST AT JUSTH

Card Number	Age	Sex	Address
102850	54	Male	Jimma
103177	42	Female	Asendabo
103229	30	Female	Omonada
108199	22	Female	Jimma
108844	30	Female	Joba
118490	28	Female	Keressa
121081	50	Male	Jimma
127455	28	Male	Limmu
128840	38	Male	Mana
129206	45	Female	Keresa
131367	45	Male	Gomma
133900	32	Female	Gomma
141473	20	Male	Jimma
148467	45	Male	Mana
150018	12	Male	Mana
151423	39	Male	Sentema
152495	2o	Male	Agaro
156770	64	Female	Mana
156961	20	Male	T.Afata
157524	40	Female	Jimma
159135	30	Female	Gomma
162931	25	Female	Dedo
164199	25	Male	Jimma
164701	40	Female	Dedo
166943	48	Male	Jimma
168948	38	Male	Jimma
169693	48	Male	Jimma
177388	28	Female	Limmu
187510	37	Male	Seka
188393	25	Male	Dedo
198531	38	Female	Dimtu
200363	30	Male	Limmu
200772	27	Male	Kersa

Card Number	Age	Sex	Address
480507	43	Male	Seka
482120	32	Female	Chora
482267	45	Female	Saja
484667	20	Male	Kersa
484829	37	Female	Gomma
485850	35	Male	Jimma
486099	27	Male	Mana
488737	21	Male	Bedelle
490466	30	Male	Limmu Seka
490743	25	Female	Jimma
490868	28	Male	O.Nada
491434	18	Female	Limmu
492124	25	Male	Jimma
494436	27	Male	Jimma
495489	25	Female	Sentema
496867	44	Male	Jimma
499940	30	Male	Gomma
501690	48	Female	Sekoru
502683	45	Female	Shebe
503418	60	Male	Jimma
508817	46	Male	Jimma
510544	35	Female	Jimma
510648	30	Female	Jimma
510651	41	Male	Gomma
510859	38	Male	Dedo
512571	18	Female	Tepi
512813	20	Male	Mana
513138	25	Male	Mizan
513208	32	Female	O.Nada
513333	40	Male	Jimma
513749	55	Male	Jimma
514301	18	Male	Shebe
514305	18	Male	Jimma

207907	25	Male	Sekoru
208597	28	Male	Mana
209531	25	Male	Mana
211518	28	Male	O.Nada
215016	29	Female	Jimma
218682	33	Male	Keresa
219075	18	Female	Mana
219084	20	Female	Limmu Seka
219130	40	Female	Jimma
225097	18	Male	Jimma
228584	50	Male	Mana
230081	28	Male	Kersa
231493	14	Female	Jimma
233167	35	Male	Mana
234514	30	Male	Gomma
238851	49	Female	Mna
238955	20	Female	Gomma
239785	28	Male	Jimma
241350	50	Male	Jimma
241460	12	Male	O.Nada
243498	70	Male	T.Afata
245701	37	Female	Agaro
248171	9	Male	Seka
248662	17	Female	Jimma
250516	20	Male	Kersa
253450	35	Male	O.Nada
253480	32	Male	Shebe
254833	24	Male	Sigmo
255234	21	Male	Jimma
257336	48	Male	Mizan
258228	22	Female	O.Nada
263391	35	Male	Jimma
266606	28	Male	Gera
266609	28	Male	Gera
270075	20	Male	Kersa
270401	41	Male	Dedo
270525	30	Male	Kersa
272141	27	Male	Jimma
272985	45	Female	Jimma
282678	23	Male	Dedessa

514718	22	Male	Gambella
514827	20	Male	Shebe Sembo
515316	27	Male	Jimma
515318	33	Male	Jimma
515323	53	Male	Jimma
515324	41	Female	Jimma
515604	30	Male	Jimma
515645	38	Female	Jimma
515721	24	Male	Jimma
515729	28	Male	T.Afeta
515730	27	Male	Jimma
515731	55	Male	Sokoru
515737	45	Female	Jimma
515739	25	Male	Gomma
515740	46	Female	Yebu
515746	40	Male	Jimma
515747	44	Male	Jimma
515748	40	Male	Jimma
515750	50	Female	Jimma
515755	22	Male	Dedessa
516186	67	Male	Gomma
516187	21	Male	Mana
516189	22	Female	O.Nada
516191	50	Male	Jimma
516195	28	Female	Jimma
516196	34	Male	Limmu
516203	35	Female	O.Nada
516206	35	Female	Gomma
518168	34	Male	Jimma
518188	35	Female	Jimma
518222	38	Male	Agaro
518298	43	Female	Agaro
518299	45	Male	Agaro
518302	25	Female	Jimma
518307	29	Female	Jimma
518312	32	Male	Mana
518313	30	Male	Seka
518315	32	Male	O.Nada
518317	34	Male	Jimma
518318	19	Male	Mana

285481	15	Male	Kersa
288960	30	Male	Gomma
290481	32	Male	Seka
290989	42	Male	Dedo
292065	35	Female	Limmu Seka
295561	22	Female	O.Nada
298399	38	Male	Shebe
298640	35	Male	Jimma
299842	45	Male	Limmu
301715	25	Male	Limmu Seka
303178	28	Male	Gomma
303227	33	Male	Jimma
306185	23	Male	Jimma
311159	40	Male	Kersa
313592	38	Male	Sentema
315694	25	Male	Shebe Sombo
316847	21	Male	Kersa
318678	30	Male	Jimma
326456	55	Female	Jimma
326810	32	Female	Gatira
326830	18	Male	Kersa
327561	30	Male	Gomma
329755	24	Male	O.Nada
330882	23	Male	Kersa
332787	25	Female	Debubi
333169	31	Male	O.Nada
335573	18	Female	Mana
336882	23	Male	Kersa
337365	26	Male	Gomma
339035	35	Female	Sentema
341111	35	Male	Gera
347461	25	Female	Jimma
350108	53	Female	Jimma
350813	23	Male	Jimma
351281	25	Male	Gera
354358	18	Male	Kersa
354631	30	Male	Mana
354660	32	Male	Kersa
356642	25	Male	O.Nada
357417	35	Female	Kersa

518322	32	Male	Jimma
518323	41	Female	Mana
518335	22	Male	Kersa
518369	40	Male	Mizan
518491	29	Male	Jimma
518493	26	Male	Jimma
518495	34	Male	Jimma
518624	30	Male	Jimma
518817	46	Male	Jimma
518823	32	Female	Mana
518825	27	Male	Jimma
518826	14	Male	Toba
518827	23	Female	Jimma
518828	20	Male	Dimtu
518830	36	Female	Jimma
518834	34	Male	Jimma
518842	23	Male	Limmu
518844	24	Male	Mana
518877	29	Male	Jimma
519298	19	Male	Jimma
519428	46	Female	jimma
519433	45	Female	Bedelle
519444	60	Male	Jimma
519446	30	Male	L.Genet
519725	25	Male	L.Seka
519733	37	Female	Jimma
519735	30	Male	Jimma
519739	40	Male	O.Nada
519748	34	Female	Agaro
520006	35	Female	Jimma
520009	25	Male	Mizan
520011	30	Female	Jimma
520012	30	Female	Jimma
520155	25	Male	Jimma
520184	32	Male	Jimma
520428	38	Male	Jimma
520468	34	Male	Sokoru
520476	22	Female	Kersa
520481	27	Male	Serbo
520483	32	Female	Jimma

358128	25	Male	Dedo
359192	42	Female	Jimma
359706	60	Male	Gomma
360156	30	Male	Tarcha
360753	27	Female	Jimma
362005	27	Male	Jimma
362175	18	Female	Jimma
364566	45	Male	Jimma
364936	21	Male	Jimma
367851	60	Female	Bonga
371757	28	Male	Mana
372337	40	Female	Jimma
373153	27	Male	Shabe
373253	27	Male	Mana
374668	52	Male	Dedo
379318	20	Male	Mizan
379558	18	Male	Jimma
379986	21	Female	Jimma
380371	28	Male	Jimma
381150	26	Male	Seka
382409	37	Male	Jimma
382943	25	Male	Jimma
383205	22	Female	O.Nada
385365	21	Male	Shabe
387576	35	Female	T.Afata
390449	28	Female	Chorabotre
391745	48	Female	Agaro
391804	32	Female	Gomma
392861	24	Male	Limmu
393044	13	Male	Gomma
395086	23	Male	Mana
395513	35	Female	Seka
395700	29	Male	Jimma
397260	57	Male	L.Shoye
398534	29	Male	Bonga
400171	25	Male	O.Nada
402437	22	Male	Jimma
402672	20	Male	O.Nada
402736	37	Male	Jimma
406551	50	Male	Mana

520492	35	Female	Kersa
520557	35	Male	Jimma
520558	38	Male	Jimma
520560	39	Male	Jimma
520649	30	Female	Jimma
520650	20	Female	Jimma
520652	64	Female	Mana
520659	48	Male	Jimma
520857	32	Male	Jimma
520985	31	Male	Jimma
520986	41	Male	Illubabor
520989	18	Female	Seka
520990	20	Male	Shebe
520995	32	Male	Jimma
520152	30	Male	Jimma
521207	21	Male	Mana
521252	27	Female	Agaro
521310	7	Male	Debub
521485	29	Male	L.Kersa
521486	40	Male	O.Nada
520650	41	Male	Gomma
521843	25	Male	Jimma
521846	29	Male	Sigmo
521848	32	Female	Seka
521850	31	Female	L.Korsa
521851	34	Female	Limmu Seka
522047	22	Female	Sekoru
522058	34	Male	Sentema
522062	50	Male	Jimma
522063	30	Male	Seka
522065	24	Male	Limmu
522066	31	Female	Gomma
522068	40	Male	L.Seka
522538	35	Male	Kersa
522682	40	Female	Gomma
522847	22	Female	Jimma
522932	30	Female	Jimma
523784	28	Male	O.Nada
524001	40	Male	Jimma
524007	25	Male	Jimma

408825	30	Male	Agaro
409966	31	Male	Jimma
410775	22	Female	Limmu
414630	30	Male	Agaro
414708	25	Female	Jimma
414742	35	Male	Jimma
414810	25	Male	Seka
415900	57	Male	Jimma
417305	35	Female	Jimma
417849	28	Male	Dawro
418458	19	Female	Limmu Kosa
419331	38	Female	Gera
422775	20	Male	Kersa
424691	23	Male	Jimma
426084	23	Male	Jimma
426524	20	Male	Dedo
426578	21	Male	Jimma
429623	28	Female	Jimma
429855	28	Male	Agaro
430503	35	Male	Mana
440500	28	Male	Mna
442595	34	Male	Jimma
443761	58	Male	O.Nada
443961	25	Female	Jimma
443964	35	Male	Jimm
444993	31	Female	Jimma
445718	20	Male	Gatira
451555	39	Female	Yebu Sombo
451657	23	Male	Mizan
452969	25	Male	Mana
452994	27	Male	Jimma
459704	30	Female	Jimma
455236	61	Female	Seka
456319	45	Female	Teppi
456714	26	Male	Dedo
459767	35	Male	Seka
460394	20	Female	Jimma
460734	35	Male	Kersa
461378	22	Female	Konta
461761	20	Male	Dedo

524146	24	Male	I.Albor
524379	60	Female	Agaro
524380	32	Male	Shabu
524383	58	Female	Mana
524464	50	Male	Jimma
524575	34	Female	Jimma
524578	41	Male	Jimma
524711	38	Male	Mana
524950	Male	38	Agaro
524955	40	Male	Sigmo
524960	28	Male	Jimma
525447	37	Male	Kersa
525448	28	Male	Gomma
525538	35	Male	Kersa
525721	60	Male	Mana
525788	28	Male	Jimma
525842	58	Female	Agaro
526251	47	Male	Agaro
526255	33	Male	Agaro
526256	46	Male	Jimma
526257	28	Male	Jimma
526752	18	Female	Jimma
526791	25	Male	Mizan
527060	28	Male	Jimma
527103	35	Female	Jimma
527105	27	Female	Jimma
527108	46	Female	Agaro
527180	34	Female	Kersa
527187	36	Male	Jimma
527760	35	Female	Jimma
527762	24	Male	Jimma
528252	27	Male	Gomma
528258	23	Female	Shebe
528262	30	Male	Jimma
528263	42	Male	Asendabo
528474	21	Female	Jimma
528521	26	Male	Limmu
528810	25	Female	Jimma
529051	38	Male	Sigimo
529148	25	Male	Mana

463080	40	Male	Jimma
466419	29	Male	Sigmo
467299	45	Male	Jimma
468611	50	Male	Kersa
471447	31	Male	L.Kosa
479178	30	Male	Kersa
479448	30	Female	Sentema
520648	30	Female	Jimma

529471	30	Female	Bedelle
529425	25	Male	Teppi
529499	21	Male	Gomma
529792	48	Male	jimma
529854	30	Male	Sekoru
529917	51	Female	Limmu
533382	24	Male	Jimma
522050	46	Male	Agaro